ORIGINAL SIGNATURES 18-044

ILLINOIS HEALTH FACILITIES AND SERVICES REVIEW BOARD APPLICATION FOR PERMIT

SECTION I. IDENTIFICATION, GENERAL INFORMATION, AND CERTIFICATION

This Section must be completed for all projects.

Facility/Project Identification

Facility Name: Illinois Spine Institute
Street Address: 500 West Golf Road
City and Zip Code: Schaumburg 60195
County: Cook Health Service Area: 6 Health Planning Area:

RECEIVED
NOV 02 2018
HEALTH FACILITIES & SERVICES REVIEW BOARD

Applicant(s) [Provide for each applicant (refer to Part 1130.220)]

Exact Legal Name: Specialty Surgicare, LTD.
Street Address: 500 West Golf Road
City and Zip Code: Schaumburg 60195
Name of Registered Agent: Babak Lami, M.D.
Registered Agent Street Address: 500 West Golf Road
Registered Agent City and Zip Code: Schaumburg 60195
Name of Chief Executive Officer: Babak Lami, M.D.
CEO Street Address: 500 West Golf Road
CEO City and Zip Code: Schaumburg 60195
CEO Telephone Number: 847-303-1200

Type of Ownership of Applicants

☒ Non-profit Corporation ☐ Partnership
☐ For-profit Corporation ☐ Governmental
☐ Limited Liability Company ☐ Sole Proprietorship ☐ Other

- Corporations and limited liability companies must provide an **Illinois certificate of good standing.**
- Partnerships must provide the name of the state in which they are organized and the name and address of each partner specifying whether each is a general or limited partner.

APPEND DOCUMENTATION AS ATTACHMENT 1 IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Primary Contact [Person to receive ALL correspondence or inquiries]

Name: Babak Lami. M.D.
Title: Chief Executive Officer
Company Name: Specialty Surgicare, LTD.
Address: 500 West Golf Road Schaumburg, Illinois 60195
Telephone Number:847-303-1200
E-mail Address: blami@ilspine.com
Fax Number: 847-519-9760

Additional Contact [Person who is also authorized to discuss the application for permit]

Name: Juan Morado Jr.
Title: CON Counsel
Company Name: Benesch, Friedlander, Coplan & Aronoff LLP
Address: 333 West Wacker Drive, Chicago, IL 60606
Telephone Number:312-212-4967
E-mail Address: jmorado@beneschlaw.com
Fax Number:312-767-9192

Post Permit Contact

[Person to receive all correspondence subsequent to permit issuance-**THIS PERSON MUST BE EMPLOYED BY THE LICENSED HEALTH CARE FACILITY AS DEFINED AT 20 ILCS 3960]**

Name: Babak Lami, M.D.
Title: Chief Executive Officer
Company Name: Specialty Surgicare, LTD.
Address: 500 West Golf Road Schaumburg, Illinois 60195
Telephone Number:847-303-1200
E-mail Address: blami@ilspine.com
Fax Number: 847-519-9760

Site Ownership

[Provide this information for each applicable site]

Exact Legal Name of Site Owner: UNCUS, LLC
Address of Site Owner: 117 South Cook Street, #206, Barrington, Illinois 60010
Street Address or Legal Description of the Site: **Proof of ownership or control of the site is to be provided as Attachment 2. Examples of proof of ownership are property tax statements, tax assessor's documentation, deed, notarized statement of the corporation attesting to ownership, an option to lease, a letter of intent to lease, or a lease.**
APPEND DOCUMENTATION AS ATTACHMENT 2, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Operating Identity/Licensee

[Provide this information for each applicable facility and insert after this page.]

Exact Legal Name: Specialty Surgicare, LTD.

Address: 500 West Golf Road, Schaumburg, Illinois 60195

☒	Non-profit Corporation	☐	Partnership		
☐	For-profit Corporation	☐	Governmental		
☐	Limited Liability Company	☐	Sole Proprietorship	☐	Other

- Corporations and limited liability companies must provide an Illinois Certificate of Good Standing.
- Partnerships must provide the name of the state in which organized and the name and address of each partner specifying whether each is a general or limited partner.
- **Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.**

APPEND DOCUMENTATION AS ATTACHMENT 3, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Organizational Relationships

Provide (for each applicant) an organizational chart containing the name and relationship of any person or entity who is related (as defined in Part 1130.140). If the related person or entity is participating in the development or funding of the project, describe the interest and the amount and type of any financial contribution.

APPEND DOCUMENTATION AS ATTACHMENT 4, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Flood Plain Requirements

[Refer to application instructions.]

Provide documentation that the project complies with the requirements of Illinois Executive Order #2006-5 pertaining to construction activities in special flood hazard areas. As part of the flood plain requirements, please provide a map of the proposed project location showing any identified floodplain areas. Floodplain maps can be printed at **www.FEMA.gov** or **www.illinoisfloodmaps.org**. **This map must be in a readable format.** In addition, please provide a statement attesting that the project complies with the requirements of Illinois Executive Order #2006-5 **(http://www.hfsrb.illinois.gov)**.

APPEND DOCUMENTATION AS ATTACHMENT 5, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Historic Resources Preservation Act Requirements

[Refer to application instructions.]

Provide documentation regarding compliance with the requirements of the Historic Resources Preservation Act.

APPEND DOCUMENTATION AS ATTACHMENT 6, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

DESCRIPTION OF PROJECT

1. Project Classification

[Check those applicable - refer to Part 1110.20 and Part 1120.20(b)]

Part 1110 Classification:

☒ Substantive

☐ Non-substantive

2. Narrative Description

In the space below, provide a brief narrative description of the project. Explain **WHAT** is to be done in **State Board defined terms**, **NOT WHY** it is being done. If the project site does NOT have a street address, include a legal description of the site. Include the rationale regarding the project's classification as substantive or non-substantive.

Specialty Surgicare, LTD, is proposing to establish a limited specialty ambulatory surgical treatment center ("ASTC") with one operating room located in existing space located at 500 West Golf Road, Schaumburg, Illinois 60195, thus making this a substantive project.

The ASTC will be wholly owned by qualified physician investors, Dr. Babak Lami and Dr. Carl Graf. The facility will seek to provide two categories of services, orthopedic surgery, and paint management.

Project Costs and Sources of Funds

Complete the following table listing all costs (refer to Part 1120.110) associated with the project. When a project or any component of a project is to be accomplished by lease, donation, gift, or other means, the fair market or dollar value (refer to Part 1130.140) of the component must be included in the estimated project cost. If the project contains non-reviewable components that are not related to the provision of health care, complete the second column of the table below. Note, the use and sources of funds must be equal.

Project Costs and Sources of Funds			
USE OF FUNDS	**CLINICAL**	**NONCLINICAL**	**TOTAL**
Preplanning Costs	0	0	0
Site Survey and Soil Investigation	0	0	0
Site Preparation	0	0	0
Off Site Work	0	0	0
New Construction Contracts	0	0	0
Modernization Contracts	0	0	0
Contingencies	0	0	0
Architectural/Engineering Fees	0	0	0
Consulting and Other Fees	0	$75,000	0
Movable or Other Equipment (not in construction contracts)	0	0	0
Bond Issuance Expense (project related)	0	0	0
Net Interest Expense During Construction (project related)	0	0	0
Fair Market Value of Leased Space or Equipment	$261,100.56	$98,690.76	$359,791.32
Other Costs To Be Capitalized	0	0	0
Acquisition of Building or Other Property (excluding land)	0	0	0
TOTAL USES OF FUNDS	**$261,100.56**	**$173,690.76**	**$434,791.32**
SOURCE OF FUNDS	**CLINICAL**	**NONCLINICAL**	**TOTAL**
Cash and Securities	$261,100.56	$173,690.76	$434,791.32
Pledges	0	0	0
Gifts and Bequests	0	0	0
Bond Issues (project related)	0	0	0
Mortgages	0	0	0
Leases (fair market value)	0	0	0
Governmental Appropriations	0	0	0
Grants	0	0	0
Other Funds and Sources	0	0	0
TOTAL SOURCES OF FUNDS	**$261,100.56**	**$173,690.76**	**$434,791.32**

NOTE: ITEMIZATION OF EACH LINE ITEM MUST BE PROVIDED AT ATTACHMENT 7, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

Related Project Costs
Provide the following information, as applicable, with respect to any land related to the project that will be or has been acquired during the last two calendar years:

Land acquisition is related to project ☐ Yes ☒ No
Purchase Price: $__0.00_____
Fair Market Value: $__FMV Per Lease_____

The project involves the establishment of a new facility or a new category of service
☒ Yes ☐ No

If yes, provide the dollar amount of all **non-capitalized** operating start-up costs (including operating deficits) through the first full fiscal year when the project achieves or exceeds the target utilization specified in Part 1100.

Estimated start-up costs and operating deficit cost is $ ____0_____.

Project Status and Completion Schedules

For facilities in which prior permits have been issued please provide the permit numbers.

Indicate the stage of the project's architectural drawings:

☒ None or not applicable ☐ Preliminary
☐ Schematics ☐ Final Working

Anticipated project completion date (refer to Part 1130.140): ___December 31, 2019_____

Indicate the following with respect to project expenditures or to financial commitments (refer to Part 1130.140):

☐ Purchase orders, leases or contracts pertaining to the project have been executed.
☐ Financial commitment is contingent upon permit issuance. Provide a copy of the contingent "certification of financial commitment" document, highlighting any language related to CON Contingencies
☒ Financial Commitment will occur after permit issuance.

APPEND DOCUMENTATION AS ATTACHMENT 8, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

State Agency Submittals [Section 1130.620(c)]

Are the following submittals up to date as applicable: **NOT APPLICABLE**
☐ Cancer Registry
☐ APORS
☐ All formal document requests such as IDPH Questionnaires and Annual Bed Reports been submitted
☐ All reports regarding outstanding permits
Failure to be up to date with these requirements will result in the application for permit being deemed incomplete.

Cost Space Requirements

Provide in the following format, the **Departmental Gross Square Feet (DGSF)** or the **Building Gross Square Feet (BGSF)** and cost. The type of gross square footage either **DGSF** or **BGSF** must be identified. The sum of the department costs **MUST** equal the total estimated project costs. Indicate if any space is being reallocated for a different purpose. Include outside wall measurements plus the department's or area's portion of the surrounding circulation space. **Explain the use of any vacated space.**

		Gross Square Feet		Amount of Proposed Total Gross Square Feet That Is:			
Dept. / Area	**Cost**	**Existing**	**Proposed**	**New Const.**	**Modernized**	**As Is**	**Vacated Space**
REVIEWABLE							
Ambulatory Surgery	$261,100.56	2090	2090	n/a	n/a	2090	n/a
Total Clinical	$261,100.56	2090	2090	n/a	n/a	2090	n/a
NON REVIEWABLE							
Administrative	$173,690.76	791	791	n/a	n/a	791	n/a
Total Non-clinical	$173,690.76	791	791	n/a	n/a	791	n/a
TOTAL	**$434,791.32**	**2881**	**2881**	**n/a**	**n/a**	**2881**	**n/a**

APPEND DOCUMENTATION AS ATTACHMENT 9, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

CERTIFICATION

The Application must be signed by the authorized representatives of the applicant entity. Authorized representatives are:

- in the case of a corporation, any two of its officers or members of its Board of Directors;
- in the case of a limited liability company, any two of its managers or members (or the sole manager or member when two or more managers or members do not exist);
- in the case of a partnership, two of its general partners (or the sole general partner, when two or more general partners do not exist);
- in the case of estates and trusts, two of its beneficiaries (or the sole beneficiary when two or more beneficiaries do not exist); and
- in the case of a sole proprietor, the individual that is the proprietor.

This Application is filed on the behalf of Specialty Surgicare, LTD. * **in accordance with the requirements and procedures of the Illinois Health Facilities Planning Act. The undersigned certifies that he or she has the authority to execute and file this Application on behalf of the applicant entity. The undersigned further certifies that the data and information provided herein, and appended hereto, are complete and correct to the best of his or her knowledge and belief. The undersigned also certifies that the fee required for this application is sent herewith or will be paid upon request.**

B - MD	
SIGNATURE	SIGNATURE
Babak Lami	Carc Graf
PRINTED NAME	PRINTED NAME
President	Vice President
PRINTED TITLE	PRINTED TITLE
Notarization: Subscribed and sworn to before me this 18th day of October 2018	Notarization: Subscribed and sworn to before me this 22ND day of October 2018
Signature of Notary	Signature of Notary
Seal: ROSELLA A CHIODO Official Seal Notary Public – State of Illinois My Commission Expires Sep 24, 2021	Seal: ROSELLA A CHIODO Official Seal Notary Public – State of Illinois My Commission Expires Sep 24, 2021

*Insert the EXACT legal name of the applicant

SECTION III. BACKGROUND, PURPOSE OF THE PROJECT, AND ALTERNATIVES - INFORMATION REQUIREMENTS

This Section is applicable to all projects except those that are solely for discontinuation with no project costs.

1110.110(a) – Background of the Applicant

READ THE REVIEW CRITERION and provide the following required information:

BACKGROUND OF APPLICANT

1. A listing of all health care facilities owned or operated by the applicant, including licensing, and certification if applicable.

2. A listing of all health care facilities currently owned and/or operated in Illinois, by any corporate officers or directors, LLC members, partners, or owners of at least 5% of the proposed health care facility.

3. For the following questions, please provide information for each applicant, including corporate officers or directors, LLC members, partners and owners of at least 5% of the proposed facility. A health care facility is considered owned or operated by every person or entity that owns, directly or indirectly, an ownership interest.

    a. A certified listing of any adverse action taken against any facility owned and/or operated by the applicant, directly or indirectly, during the three years prior to the filing of the application.

    b. A certified listing of each applicant, identifying those individuals that have been cited, arrested, taken into custody, charged with, indicted, convicted or tried for, or pled guilty to the commission of any felony or misdemeanor or violation of the law, except for minor parking violations; or the subject of any juvenile delinquency or youthful offender proceeding. Unless expunged, provide details about the conviction and submit any police or court records regarding any matters disclosed.

    c. A certified and detailed listing of each applicant or person charged with fraudulent conduct or any act involving moral turpitude.

    d. A certified listing of each applicant with one or more unsatisfied judgements against him or her.

    e. A certified and detailed listing of each applicant who is in default in the performance or discharge of any duty or obligation imposed by a judgment, decree, order or directive of any court or governmental agency.

4. Authorization permitting HFSRB and DPH access to any documents necessary to verify the information submitted, including, but not limited to official records of DPH or other State agencies; the licensing or certification records of other states, when applicable; and the records of nationally recognized accreditation organizations. **Failure to provide such authorization shall constitute an abandonment or withdrawal of the application without any further action by HFSRB.**

5. If, during a given calendar year, an applicant submits more than one application for permit, the documentation provided with the prior applications may be utilized to fulfill the information requirements of this criterion. In such instances, the applicant shall attest that the information was previously provided, cite the project number of the prior application, and certify that no changes have occurred regarding the information that has been previously provided. The applicant is able to submit amendments to previously submitted information, as needed, to update and/or clarify data.

APPEND DOCUMENTATION AS ATTACHMENT 11, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM. EACH ITEM (1-4) MUST BE IDENTIFIED IN ATTACHMENT 11.

Criterion 1110.110(b) & (d)

PURPOSE OF PROJECT

1. Document that the project will provide health services that improve the health care or well-being of the market area population to be served.
2. Define the planning area or market area, or other relevant area, per the applicant's definition.
3. Identify the existing problems or issues that need to be addressed as applicable and appropriate for the project.
4. Cite the sources of the documentation.
5. Detail how the project will address or improve the previously referenced issues, as well as the population's health status and well-being.
6. Provide goals with quantified and measurable objectives, with specific timeframes that relate to achieving the stated goals **as appropriate**.

For projects involving modernization, describe the conditions being upgraded, if any. For facility projects, include statements of the age and condition of the project site, as well as regulatory citations, if any. For equipment being replaced, include repair and maintenance records.

NOTE: Information regarding the "Purpose of the Project" will be included in the State Board Staff Report.

APPEND DOCUMENTATION AS ATTACHMENT 12, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM. EACH ITEM (1-6) MUST BE IDENTIFIED IN ATTACHMENT 12.

ALTERNATIVES

1) Identify **ALL** of the alternatives to the proposed project:

Alternative options **must** include:

A) Proposing a project of greater or lesser scope and cost;

B) Pursuing a joint venture or similar arrangement with one or more providers or entities to meet all or a portion of the project's intended purposes; developing alternative settings to meet all or a portion of the project's intended purposes;

C) Utilizing other health care resources that are available to serve all or a portion of the population proposed to be served by the project; and

D) Provide the reasons why the chosen alternative was selected.

2) Documentation shall consist of a comparison of the project to alternative options. The comparison shall address issues of total costs, patient access, quality and financial benefits in both the short-term (within one to three years after project completion) and long-term. This may vary by project or situation. **FOR EVERY ALTERNATIVE IDENTIFIED, THE TOTAL PROJECT COST AND THE REASONS WHY THE ALTERNATIVE WAS REJECTED MUST BE PROVIDED.**

3) The applicant shall provide empirical evidence, including quantified outcome data that verifies improved quality of care, as available.

APPEND DOCUMENTATION AS ATTACHMENT 13, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION IV. PROJECT SCOPE, UTILIZATION, AND UNFINISHED/SHELL SPACE

Criterion 1110.120 - Project Scope, Utilization, and Unfinished/Shell Space

READ THE REVIEW CRITERION and provide the following information:

SIZE OF PROJECT:

1. Document that the amount of physical space proposed for the proposed project is necessary and not excessive. **This must be a narrative and it shall include the basis used for determining the space and the methodology applied.**

2. If the gross square footage exceeds the BGSF/DGSF standards in Appendix B, justify the discrepancy by documenting one of the following:

   a. Additional space is needed due to the scope of services provided, justified by clinical or operational needs, as supported by published data or studies and certified by the facility's Medical Director.

   b. The existing facility's physical configuration has constraints or impediments and requires an architectural design that delineates the constraints or impediments.

   c. The project involves the conversion of existing space that results in excess square footage.

   d. Additional space is mandated by governmental or certification agency requirements that were not in existence when Appendix B standards were adopted.

Provide a narrative for any discrepancies from the State Standard. A table must be provided in the following format with Attachment 14.

SIZE OF PROJECT				
DEPARTMENT/SERVICE	PROPOSED BGSF/DGSF	STATE STANDARD	DIFFERENCE	MET STANDARD?
ASTC	2881	2075-2750	N/A	YES

APPEND DOCUMENTATION AS ATTACHMENT 14, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

PROJECT SERVICES UTILIZATION:

This criterion is applicable only to projects or portions of projects that involve services, functions or equipment for which HFSRB has established utilization standards or occupancy targets in 77 Ill. Adm. Code 1100.

Document that in the second year of operation, the annual utilization of the service or equipment shall meet or exceed the utilization standards specified in 1110.Appendix B. **A narrative of the rationale that supports the projections must be provided.**

A table must be provided in the following format with Attachment 15.

UTILIZATION					
	DEPT./ SERVICE	HISTORICAL UTILIZATION (PATIENT DAYS) (TREATMENTS) ETC.	PROJECTED UTILIZATION	STATE STANDARD	MEET STANDARD?
YEAR 1	ASTC	1080	89%	>1500	YES
YEAR 2	ASTC	1134	93%	>1500	YES

APPEND DOCUMENTATION AS ATTACHMENT 15, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

UNFINISHED OR SHELL SPACE: NOT APPLICABLE

Provide the following information:

1. Total gross square footage (GSF) of the proposed shell space.
2. The anticipated use of the shell space, specifying the proposed GSF to be allocated to each department, area or function.
3. Evidence that the shell space is being constructed due to:
   a. Requirements of governmental or certification agencies; or
   b. Experienced increases in the historical occupancy or utilization of those areas proposed to occupy the shell space.
4. Provide:
   a. Historical utilization for the area for the latest five-year period for which data is available; and
   b. Based upon the average annual percentage increase for that period, projections of future utilization of the area through the anticipated date when the shell space will be placed into operation.

APPEND DOCUMENTATION AS ATTACHMENT 16, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

ASSURANCES: NOT APPLICABLE

Submit the following:

1. Verification that the applicant will submit to HFSRB a CON application to develop and utilize the shell space, regardless of the capital thresholds in effect at the time or the categories of service involved.
2. The estimated date by which the subsequent CON application (to develop and utilize the subject shell space) will be submitted; and
3. The anticipated date when the shell space will be completed and placed into operation.

APPEND DOCUMENTATION AS ATTACHMENT 17, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION V. SERVICE SPECIFIC REVIEW CRITERIA

G. Non-Hospital Based Ambulatory Surgery

Applicants proposing to establish, expand and/or modernize the Non-Hospital Based Ambulatory Surgery category of service must submit the following information.

ASTC Service
☐ Cardiovascular
☐ Colon and Rectal Surgery
☐ Dermatology
☐ General Dentistry
☐ General Surgery
☐ Gastroenterology
☐ Neurological Surgery
☐ Nuclear Medicine
☐ Obstetrics/Gynecology
☐ Ophthalmology
☐ Oral/Maxillofacial Surgery
☒ Orthopedic Surgery
☐ Otolaryngology
☒ Pain Management
☐ Physical Medicine and Rehabilitation
☐ Plastic Surgery
☐ Podiatric Surgery
☐ Radiology
☐ Thoracic Surgery
☐ Urology
☐ Other_____

3. READ the applicable review criteria outlined below and **submit the required documentation for the criteria:**

APPLICABLE REVIEW CRITERIA	Establish New ASTC or Service	Expand Existing Service
1110.235(c)(2)(B) – Service to GSA Residents	X	X
1110.235(c)(3) – Service Demand – Establishment of an ASTC or Additional ASTC Service	X	
1110.235(c)(4) – Service Demand – Expansion of Existing ASTC Service		X
1110.235(c)(5) – Treatment Room Need Assessment	X	X
1110.235(c)(6) – Service Accessibility	X	
1110.235(c)(7)(A) – Unnecessary Duplication/Maldistribution	X	
1110.235(c)(7)(B) – Maldistribution	X	

1110.235(c)(7)(C) – Impact to Area Providers	X	
1110.235(c)(8) – Staffing	X	X
1110.235(c)(9) – Charge Commitment	X	X
1110.235(c)(10) – Assurances	X	X

APPEND DOCUMENTATION AS ATTACHMENT 24, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

The following Sections DO NOT need to be addressed by the applicants or co-applicants responsible for funding or guaranteeing the funding of the project if the applicant has a bond rating of A- or better from Fitch's or Standard and Poor's rating agencies, or A3 or better from Moody's (the rating shall be affirmed within the latest 18-month period prior to the submittal of the application):

- **Section 1120.120 Availability of Funds – Review Criteria**
- **Section 1120.130 Financial Viability – Review Criteria**
- **Section 1120.140 Economic Feasibility – Review Criteria, subsection (a)**

VI. 1120.120 - AVAILABILITY OF FUNDS

The applicant shall document that financial resources shall be available and be equal to or exceed the estimated total project cost plus any related project costs by providing evidence of sufficient financial resources from the following sources, as applicable **[Indicate the dollar amount to be provided from the following sources]:**

_____	a) Cash and Securities – statements (e.g., audited financial statements, letters from financial institutions, board resolutions) as to: 1) the amount of cash and securities available for the project, including the identification of any security, its value and availability of such funds; and 2) interest to be earned on depreciation account funds or to be earned on any asset from the date of applicant's submission through project completion;
_____	b) Pledges – for anticipated pledges, a summary of the anticipated pledges showing anticipated receipts and discounted value, estimated time table of gross receipts and related fundraising expenses, and a discussion of past fundraising experience.
_____	c) Gifts and Bequests – verification of the dollar amount, identification of any conditions of use, and the estimated time table of receipts;
$434,791.32 FMV of Sub-Lease	d) Debt – a statement of the estimated terms and conditions (including the debt time period, variable or permanent interest rates over the debt time period, and the anticipated repayment schedule) for any interim and for the permanent financing proposed to fund the project, including: 1) For general obligation bonds, proof of passage of the required referendum or evidence that the governmental unit has the authority to issue the bonds and evidence of the dollar amount of the issue, including any discounting anticipated; 2) For revenue bonds, proof of the feasibility of securing the specified amount and interest rate; 3) For mortgages, a letter from the prospective lender attesting to the expectation of making the loan in the amount and time indicated, including the anticipated interest rate and any conditions associated with the mortgage, such as, but not limited to, adjustable interest rates, balloon payments, etc.; 4) For any lease, a copy of the lease, including all the terms and conditions, including any purchase options, any capital improvements to the property and provision of capital equipment; 5) For any option to lease, a copy of the option, including all terms and conditions.

_____	e) Governmental Appropriations – a copy of the appropriation Act or ordinance accompanied by a statement of funding availability from an official of the governmental unit. If funds are to be made available from subsequent fiscal years, a copy of a resolution or other action of the governmental unit attesting to this intent;
_____	f) Grants – a letter from the granting agency as to the availability of funds in terms of the amount and time of receipt;
_____	g) All Other Funds and Sources – verification of the amount and type of any other funds that will be used for the project.
$434,791.32	**TOTAL FUNDS AVAILABLE**

APPEND DOCUMENTATION AS ATTACHMENT 33, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION VII. 1120.130 - FINANCIAL VIABILITY

All the applicants and co-applicants shall be identified, specifying their roles in the project funding or guaranteeing the funding (sole responsibility or shared) and percentage of participation in that funding.

Financial Viability Waiver

The applicant is not required to submit financial viability ratios if:

1. "A" Bond rating or better
2. All of the projects capital expenditures are completely funded through internal sources
3. The applicant's current debt financing or projected debt financing is insured or anticipated to be insured by MBIA (Municipal Bond Insurance Association Inc.) or equivalent
4. The applicant provides a third party surety bond or performance bond letter of credit from an A rated guarantor.

See Section 1120.130 Financial Waiver for information to be provided

APPEND DOCUMENTATION AS ATTACHMENT 34, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

The applicant or co-applicant that is responsible for funding or guaranteeing funding of the project shall provide viability ratios for the latest three years for which **audited financial statements are available and for the first full fiscal year at target utilization, but no more than two years following project completion.** When the applicant's facility does not have facility specific financial statements and the facility is a member of a health care system that has combined or consolidated financial statements, the system's viability ratios shall be provided. If the health care system includes one or more hospitals, the system's viability ratios shall be evaluated for conformance with the applicable hospital standards.

	Historical 3 Years			Projected
Enter Historical and/or Projected Years:				
Current Ratio				
Net Margin Percentage				
Percent Debt to Total Capitalization				
Projected Debt Service Coverage				
Days Cash on Hand				
Cushion Ratio				

Provide the methodology and worksheets utilized in determining the ratios detailing the calculation and applicable line item amounts from the financial statements. Complete a separate table for each co-applicant and provide worksheets for each.

Variance

Applicants not in compliance with any of the viability ratios shall document that another organization, public or private, shall assume the legal responsibility to meet the debt obligations should the applicant default.

APPEND DOCUMENTATION AS ATTACHMENT 35, IN NUMERICAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION VIII.1120.140 - ECONOMIC FEASIBILITY

This section is applicable to all projects subject to Part 1120.

A. Reasonableness of Financing Arrangements

The applicant shall document the reasonableness of financing arrangements by submitting a notarized statement signed by an authorized representative that attests to one of the following:

1) That the total estimated project costs and related costs will be funded in total with cash and equivalents, including investment securities, unrestricted funds, received pledge receipts and funded depreciation; or

2) That the total estimated project costs and related costs will be funded in total or in part by borrowing because:

   A) A portion or all of the cash and equivalents must be retained in the balance sheet asset accounts in order to maintain a current ratio of at least 2.0 times for hospitals and 1.5 times for all other facilities; or

   B) Borrowing is less costly than the liquidation of existing investments, and the existing investments being retained may be converted to cash or used to retire debt within a 60-day period.

B. Conditions of Debt Financing

This criterion is applicable only to projects that involve debt financing. The applicant shall document that the conditions of debt financing are reasonable by submitting a notarized statement signed by an authorized representative that attests to the following, as applicable:

1) That the selected form of debt financing for the project will be at the lowest net cost available;

2) That the selected form of debt financing will not be at the lowest net cost available, but is more advantageous due to such terms as prepayment privileges, no required mortgage, access to additional indebtedness, term (years), financing costs and other factors;

3) That the project involves (in total or in part) the leasing of equipment or facilities and that the expenses incurred with leasing a facility or equipment are less costly than constructing a new facility or purchasing new equipment.

C. Reasonableness of Project and Related Costs

Read the criterion and provide the following:

1. Identify each department or area impacted by the proposed project and provide a cost and square footage allocation for new construction and/or modernization using the following format (insert after this page).

COST AND GROSS SQUARE FEET BY DEPARTMENT OR SERVICE

Department (list below)	A	B	C	D	E	F	G	H	Total Cost (G + H)
	Cost/Square Foot New	Cost/Square Foot Mod.	Gross Sq. Ft. New	Gross Sq. Ft. Circ.*	Gross Sq. Ft. Mod.	Gross Sq. Ft. Circ.*	Const. $ (A x C)	Mod. $ (B x E)	
ASTC	$0	$0	-	-	-	-	$0	$0	$0
Contingency	$0	$0	-	-	-	-	$0	$0	$0
TOTALS	$0	$0	-	-	-	-	$0	$0	$0

* Include the percentage (%) of space for circulation

D. Projected Operating Costs

The applicant shall provide the projected direct annual operating costs (in current dollars per equivalent patient day or unit of service) for the first full fiscal year at target utilization but no more than two years following project completion. Direct cost means the fully allocated costs of salaries, benefits and supplies for the service.

E. Total Effect of the Project on Capital Costs

The applicant shall provide the total projected annual capital costs (in current dollars per equivalent patient day) for the first full fiscal year at target utilization but no more than two years following project completion.

APPEND DOCUMENTATION AS ATTACHMENT 36, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION IX. SAFETY NET IMPACT STATEMENT

SAFETY NET IMPACT STATEMENT that describes all of the following must be submitted for ALL SUBSTANTIVE PROJECTS AND PROJECTS TO DISCONTINUE STATE-OWNED HEALTH CARE FACILITIES [20 ILCS 3960/5.4]:

1. The project's material impact, if any, on essential safety net services in the community, to the extent that it is feasible for an applicant to have such knowledge.

2. The project's impact on the ability of another provider or health care system to cross-subsidize safety net services, if reasonably known to the applicant.

3. How the discontinuation of a facility or service might impact the remaining safety net providers in a given community, if reasonably known by the applicant.

Safety Net Impact Statements shall also include all of the following:

1. For the 3 fiscal years prior to the application, a certification describing the amount of charity care provided by the applicant. The amount calculated by hospital applicants shall be in accordance with the reporting requirements for charity care reporting in the Illinois Community Benefits Act. Non-hospital applicants shall report charity care, at cost, in accordance with an appropriate methodology specified by the Board.

2. For the 3 fiscal years prior to the application, a certification of the amount of care provided to Medicaid patients. Hospital and non-hospital applicants shall provide Medicaid information in a manner consistent with the information reported each year to the Illinois Department of Public Health regarding "Inpatients and Outpatients Served by Payor Source" and "Inpatient and Outpatient Net Revenue by Payor Source" as required by the Board under Section 13 of this Act and published in the Annual Hospital Profile.

3. Any information the applicant believes is directly relevant to safety net services, including information regarding teaching, research, and any other service.

A table in the following format must be provided as part of Attachment 38.

Safety Net Information per PA 96-0031			
CHARITY CARE			
Charity (# of patients)	**2015**	**2016**	**2017**
Outpatient	0	0	0
Total			
Charity (cost In dollars)	**0**	**0**	**0**
Outpatient	0	0	0
Total	0	0	0
MEDICAID			
Medicaid (# of patients)			
	2015	**2016**	**2017**
Outpatient	0	0	0
Total	0	0	0
Medicaid (revenue)			
Outpatient	0	0	0

Total	0	0	0

APPEND DOCUMENTATION AS ATTACHMENT 37, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

SECTION X. CHARITY CARE INFORMATION

Charity Care information MUST be furnished for ALL projects [1120.20(c)].

1. All applicants and co-applicants shall indicate the amount of charity care for the latest three **audited** fiscal years, the cost of charity care and the ratio of that charity care cost to net patient revenue.

2. If the applicant owns or operates one or more facilities, the reporting shall be for each individual facility located in Illinois. If charity care costs are reported on a consolidated basis, the applicant shall provide documentation as to the cost of charity care; the ratio of that charity care to the net patient revenue for the consolidated financial statement; the allocation of charity care costs; and the ratio of charity care cost to net patient revenue for the facility under review.

3. If the applicant is not an existing facility, it shall submit the facility's projected patient mix by payer source, anticipated charity care expense and projected ratio of charity care to net patient revenue by the end of its second year of operation.

Charity care" means care provided by a health care facility for which the provider does not expect to receive payment from the patient or a third-party payer (20 ILCS 3960/3). Charity Care must be provided at cost.

A table in the following format must be provided for all facilities as part of Attachment 39.

CHARITY CARE			
	2015	2016	2017
Net Patient Revenue	**0**	**0**	**0**
Amount of Charity Care (charges)	0	0	0
Cost of Charity Care	0	0	0

APPEND DOCUMENTATION AS ATTACHMENT 38, IN NUMERIC SEQUENTIAL ORDER AFTER THE LAST PAGE OF THE APPLICATION FORM.

After paginating the entire completed application indicate, in the chart below, the page numbers for the included attachments:

INDEX OF ATTACHMENTS

ATTACHMENT NO.		PAGES
1	Applicant Identification including Certificate of Good Standing	24
2	Site Ownership	25-39
3	Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.	40
4	Organizational Relationships (Organizational Chart) Certificate of Good Standing Etc.	41
5	Flood Plain Requirements	42
6	Historic Preservation Act Requirements	43
7	Project and Sources of Funds Itemization	44
8	Financial Commitment Document if required	N/A
9	Cost Space Requirements	45
10	Discontinuation	N/A
11	Background of the Applicant	46-52
12	Purpose of the Project	53-88
13	Alternatives to the Project	89-90
14	Size of the Project	91
15	Project Service Utilization	92
16	Unfinished or Shell Space	N/A
17	Assurances for Unfinished/Shell Space	N/A
	Service Specific:	
18	Medical Surgical Pediatrics, Obstetrics, ICU	N/A
19	Comprehensive Physical Rehabilitation	N/A
20	Acute Mental Illness	N/A
21	Open Heart Surgery	N/A
22	Cardiac Catheterization	N/A
23	In-Center Hemodialysis	N/A
24	Non-Hospital Based Ambulatory Surgery	93-126
25	Selected Organ Transplantation	N/A
26	Kidney Transplantation	N/A
27	Subacute Care Hospital Model	N/A
28	Community-Based Residential Rehabilitation Center	N/A
29	Long Term Acute Care Hospital	N/A
30	Clinical Service Areas Other than Categories of Service	N/A
31	Freestanding Emergency Center Medical Services	N/A
32	Birth Center	N/A
	Financial and Economic Feasibility:	
33	Availability of Funds	127-141
34	Financial Waiver	142
35	Financial Viability	N/A
36	Economic Feasibility	143-145
37	Safety Net Impact Statement	146
38	Charity Care Information	147

File Number 7036-926-5

STATE OF ILLINOIS

OFFICE OF THE SECRETARY OF STATE

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

SPECIALTY SURGICARE, LTD., A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON SEPTEMBER 25, 2015, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE BUSINESS CORPORATION ACT OF THIS STATE RELATING TO THE PAYMENT OF FRANCHISE TAXES, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 16TH *day of* SEPTEMBER *A.D.* 2018 .

Authentication #: 1825900478 verifiable until 09/16/2019
Authenticate at: http://www.cyberdriveillinois.com

Jesse White

SECRETARY OF STATE

Site Ownership/ Control

The building in which the ASTC will be located is owned by UNCUS, LLC, an Illinois Corporation and is leased by Illinois Spine Institute, S.C.. The applicant intends to sub-lease a portion of the building from Illinois Spine Institute, S.C. Attached as evidence of control is a letter of intent to reflect the terms under which the space will be leased if approved for the establishment of an ASTC.

OFFICE LEASE

This Lease Agreement is made and entered into by and between **UNCUS, LLC**, 117 South Cook Street, # 206, Barrington, Illinois, 60010 (Landlord) and **ILLINOIS SPINE INSTITUTE, SC,** 500 West Golf Road, Schaumburg, Illinois, 60195 (Tenant). Landlord hereby leases to Tenant and Tenant hereby leases from Landlord that certain property, with the improvements thereon, containing approximately 11,125 square feet, Exhibit "*A*" attached, or 100% of the total building improvements, hereinafter called the "leased premises", commonly known as 500 West Golf Road, Schaumburg, Illinois, 60195.

The primary term of this lease shall be eight (8) years commencing on the first day of January 1, 2018 and ending on the 30th day of January, 2026, subject to automatic extension as hereinafter provided, upon the following terms, conditions and covenants.

I. RENT. Tenant agrees to and shall pay Landlord at 117 South Cook Street, # 206, Barrington, Illinois, 60010 or at such other place Landlord shall designate from time to time in writing, as rent for the leased premises payable without demand as follows: Months 1 through 12, the sum of $23,000.00 per month. Each such payment of rent shall be paid in advance on or before the first day of each month commencing on January 1, 2018 Rent received after the fifteenth day of the month shall be deemed delinquent. If rent is not received by Landlord by the 15th day of each month, Tenant shall pay a late charge of five (5%) percent of the amount due.

Subsequent to the first twelve (12) months, the amount of the rental to be paid each month shall be as follows:

a. Second year, January 1, 2019 to December 31, 2019, rent at $23,690 per month;

b. Third year, January 1, 2020 to December 31, 2020, rent payable at $24,400 per month;

c. Fourth year, January 1, 2021 to December 31, 2021, rent payable at $25,132 per month;

d. Fifth year, January 1, 2022 to December 31, 2022, rent payable at $25,886 per month;

e. Sixth year, January 1, 2023 to December 31, 2023, rent payable at $26,663per month;

f. Seventh year, January 1, 2024 to December 31, 2024, rent payable at $27,463per month;

g. Eight year, January 1, 2025 to December 31, 2025, rent payable at $28,287 per month;

II. ADDITIONAL RENT-TAXES AND OPERATING EXPENSE. It is understood that the Base Rent does not include the cost of Taxes on the Building or on the Land underlying the Building or the cost of operating and maintaining the Building. Therefore, in order that the rental payable under this Lease shall reflect any such cost, Tenant agrees to pay Additional Rent computed as set forth below.

A. Tenant agrees to pay as Additional Rent, based on the percentage of the rented space, for each calendar year during the Term including any extensions or renewals thereof, Taxes (defined below) assessed or incurred, regardless of when such Taxes are payable.

B. Tenant agrees to pay all operating cost corresponding to the percentage of the rented space. As used in this Lease, the term "Operating Expenses" means all costs of ownership, operation, and maintenance of the Building, as determined by standard accounting principles, and shall include the following by way of illustration and not limitation: heat, water, electricity and other utility charges; insurance premiums, licenses, permit and inspection fees; and the cost of all labor, contracted or otherwise, materials, snow and refuse removal and other services paid or incurred by Landlord in the operation and maintenance of the common area of the Building, including the costs of Building security, during the Lease Term. Operating Expenses shall not include (i) utilities provided to and directly paid for by Tenant, (ii) any principal payments or interest expense on any loans secured by mortgages placed on the Building and underlying Land, or ground rent; (iii) the cost of any work or service performed in any instance for any tenant (including Tenant) at the cost of that tenant; or (iv) any cost for which Landlord has received direct reimbursement other than by payment of Base Rent or of Tax and Operating Expense payments under clauses similar to this paragraph.

C As used in this Lease, the term "Taxes" mean all federal, state and local governmental taxes, assessments, and charges (including transit or transit district taxes or assessments), general real estate taxes, assessments (whether they be general or special), sewer rents, rates, and charges, taxes based on leases or the receipt of rent, ad valorem taxes, and any other federal, state, or local governmental charges, general, special, ordinary, or extraordinary, of every kind or nature levied or assessed on or with respect to, or that become payable because of or in connection with the ownership, leasing, management, control, or operation of the Land or Building or both or the personal property, fixtures, machinery, equipment, systems, and apparatus located therein or used in connection therewith. Should the State of Illinois, or any political subdivision of that state or any

other governmental authority having jurisdiction over the land or the Building, (a) impose a tax assessment, charge, or fee or increase a then-existing tax, assessment, charge, or fee, that Landlord shall be required to pay, either by way of substitution for real estate taxes and ad valorem personal property taxes or in addition to real estate taxes and ad valorem personal property taxes; or (b) impose an income or franchise tax or a tax on rents in substitution for or as a supplement to a tax levied against the Land or the Building or the personal property used in connection therewith, all such taxes, assessments, fees, or charges (Alternate Taxes) shall be deemed to constitute "Taxes" under this Lease. "Taxes" shall also include all installments of real estate taxes and special assessments that are required to be paid during any year of the Lease Term and all fees and costs, including attorneys' fees and expenses, incurred by Landlord in seeking to obtain a reduction of or a limitation on the increase in any taxes, regardless of whether any reduction or limitation is obtained. Except as provided in this Lease with regard to Alternate Taxes, "Taxes" shall not include any inheritance, estate, succession, transfer, gift, franchise, net income, or capital stock tax imposed on or assessed against Landlord.

D Tenant acknowledges that the landlord has paid to the cost of Tenant's buildout. Tenant shall pay additional rent of $4700 per month for the cost of this buildout during the terms of this lease and any extension of.

F. Tenant may cancel the portion of lease on the current undeveloped 2872 square feet area at any time as long as it remains unimproved and not buildout.

III. UTILITIES. Tenant shall pay all charges for utility services to the leased premises.

IV. HOLDING OVER. Failure of Tenant to surrender the leased premises at the expiration of the lease constitutes a holding over which shall be construed as a tenancy month to month at a rate of One Hundred Ten Percent (110%) of the amount of the rental to be paid for the last month of the lease term. Either party may cancel said month to month tenancy on one month's advance written notice to the other party.

V. INSURANCE. Landlord shall pay for fire and extended coverage insurance on the buildings and other improvements in an amount equal to the maximum insurable replacement value of the improvements on the leased premises. Said fire and extended coverage insurance policy shall be issued for the benefit of Landlord and any proceeds there from shall be payable to Landlord.

Tenant shall provide public liability and property damage insurance for its business operations on the leased premises in the amount of $1,000,000.00 which policy shall cover the Landlord as well as the Tenant. Said insurance policies required to be provided by Tenant herein shall name Landlord as an additional insured and shall be issued by an insurance company approved by Landlord. Tenant shall provide Landlord with certificates of insurance evidencing the coverage required herein. Tenant shall be solely responsible for fire and casualty insurance on Tenant's property on or about the leased premises. If Tenant does not maintain such insurance in full force and effect, Landlord may notify Tenant of such failure and if Tenant does not deliver to Landlord within 10 days after such notice certification showing all such insurance to be in full force and effect, Landlord may at his option, take out the necessary insurance to comply with the provision hereof and pay the premiums on the items specified in such notice, and Tenant covenants thereupon on demand to reimburse and pay Landlord any amount so paid or expended in the payment of the insurance premiums required hereby and specified in the notice, with interest thereon at the rate of ten (10%) percent per annum from the date of such payment by Landlord until repaid by Tenant.

VI. CONDITION OF PREMISES. Tenant has examined and accepts the leased premises in its present "as is" condition as suitable for the purposes for which the same are leased.

VII. MAINTENANCE AND REPAIRS. Landlord shall keep the foundation, the exterior walls (except glass; windows; doors; door closure devises; window and door frames, molding, locks, and hardware) and exterior painting or other treatment of exterior walls, and the roof of the leased premises in good repair except that Landlord shall not be required to make any repairs occasioned by the act or negligence of Tenant, its employees, subtenants, licensees and concessionaires. Tenant is responsible for maintenance of the common area and common area equipment. If Landlord is responsible for any such repair and maintenance, Tenant agrees to give Landlord written notice of needed repairs. Landlord shall make such repairs within a reasonable time. Tenant shall notify Landlord immediately of any emergency repairs.

Tenant shall keep the leased premises in good, clean condition and shall at its sole cost and expense. make all needed repairs and replacements, including replacement of cracked or broken glass, except for repairs and replacements required to be made by Landlord under this section. If any repairs required to be made by Tenant hereunder are not made within ten (10) days after written notice delivered to Tenant by Landlord, Landlord may at its option make such repairs without liability to

Tenant for any loss or damage which may result by reason of such repairs, and Tenant shall pay to Landlord upon demand as additional rent hereunder the cost of such repairs plus interest.

At the termination of this lease, Tenant shall deliver the leased premises in good order and condition, normal wear and tear excepted. Normal wear and tear means deterioration which occurs without negligence, carelessness, accident or abuse.

VIII. ALTERATIONS. All alterations, additions and improvements, including build out of the leased premises, except trade fixtures, installed at expense of Tenant, shall become the property of Landlord and shall remain upon and be surrendered with the leased premises as a part thereof on the termination of this lease. Such alterations, additions, and improvements may only be made with the prior written consent of Landlord, which consent shall not be unreasonably withheld. If consent is granted for the making of improvements or alterations shall not commence until Tenant has furnished to Landlord a certificate of insurance showing coverage in an amount satisfactory to Landlord protecting Landlord from liability for injury to any person and damage to any personal property, on or off the leased premises, in or structure of any kind shall be placed on the roof or elsewhere on the leased premises by Tenant without prior written permission of Landlord. If such permission is granted, such work or installation shall be done at Tenant's expense and in such a manner that the roof shall not be damaged thereby. If it becomes necessary to remove such cooling tower, equipment or structure temporarily so that repairs to the roof can be made, Tenant shall promptly remove and reinstall the cooling tower, equipment or structure at Tenant's expense and repair at Tenant's expense any damage resulting from such removal or reinstallation. Upon termination of this lease, Tenant shall deliver the leased premises in good order and condition, natural deterioration only excepted. Any damage caused by the installation of trade fixtures shall be repaired at Tenant's expense prior to the expiration of the lease term. All alterations, improvements, additions, and repairs made by Tenant shall be made in good and workmanlike manner.

IX. COMPLIANCE WITH LAWS AND REGULATIONS. Tenant shall, at its own expense, comply with all laws, orders, and requirements of all governmental entities with reference to the use and occupancy of the leased premises. Tenant and Tenant's agents, employees, and invitees shall fully comply with any rules and regulations governing the use of the buildings or other

improvements to the leased premises as required by Landlord. Landlord may make reasonable changes in such rules and regulations from time to time as deemed advisable for the safety, care and cleanliness of the leased premises, provided same are in writing and are not in conflict with this lease.

X. DESTRUCTION. In the event the leased premises is partially damaged or destroyed or rendered partially unfit for occupancy by fire or other casualty, Tenant shall give immediate notice to Landlord. Landlord may repair the damage and restore the leased premises to substantially the same condition as immediately prior to the occurrence of the casualty. Such repairs shall be made at Landlord's expense unless due to tenant's negligence. Landlord shall allow Tenant a fair reduction of rent during the time the leased premises are partially unfit for occupancy. If the leased premises are totally destroyed or deemed by the Landlord to be rendered unfit for occupancy by fire or other casualty, or if Landlord shall decide not to repair or rebuild, this lease shall terminate and the rent shall be paid to the time of such casualty.

XI. TENANT DEFAULT AND REMOVAL OF ABANDONED PROPERTY. If Tenant abandons the premises or otherwise defaults in the performance of any obligations or covenants herein, Landlord may enforce the performance of the lease in any manner provided by law. This lease may be terminated at Landlord's discretion if such abandonment or default continues for a period of 10 days after Landlord notifies Tenant of such abandonment or default and of Landlord's intention to declare this lease terminated. Such notice shall be sent by Landlord to Tenant at Tenant's last known address by certified mail. If Tenant has not completed removed or cured default within the 10 day period, this lease shall terminate. Thereafter, Landlord or its agents shall have the right, without further notice or demand, to enter the leased premises, and remove all property without being deemed guilty of trespass and without waiving any other remedies for arrears of rent or breach of covenant. Upon abandonment or default by the Tenant, the remaining unpaid portion of the rental from paragraph I herein, shall become due and payable. For the purposes of this section, Tenant is presumed to have abandoned the premises if goods, equipment, or other property, in an amount substantial enough to indicate a probable intent to abandon the premises, is being or has been removed from the premises an the removal is not within the normal course of Tenant's business. Landlord shall have the right to store any property of Tenant that remains on premises that are abandoned; and, in addition to Landlord's other rights, Landlord may dispose of the stored property

if Tenant does not claim the property within 60 days after the date the property is stored, provided Landlord delivers by certified mail to Tenant at Tenant's last known address a notice stating that Landlord may dispose of Tenant's property if Tenant does not claim the property within 60 days after the date the property is stored.

XII. INTERRUPTION OF UTILITIES. Landlord or Landlord's agent may not interrupt or cause the interruption of utility service paid directly to the utility company by Tenant unless interruption results from bona fide repairs, construction, or an emergency. If any utility services furnished by Landlord are interrupted and continue to be interrupted despite the good faith efforts of Landlord to remedy same, Landlord shall not be liable in any respect for damages to the person or property of Tenant or Tenant's employees, agents, or guests, and same shall not be construed as grounds for constructive eviction or abatement or rent. Landlord shall use reasonable diligence to repair and remedy such interruption quickly.

XIII. EXCLUSION OF TENANT. Landlord may not intentionally prevent Tenant from entering the leased premises except by judicial process unless the exclusion results from: (a) bona fide repairs, construction, or an emergency; (b) removing the contents of premises abandoned by Tenant; or (c) changing the door locks of Tenant in the event Tenant is delinquent in paying rent. Landlord or Landlord's agent must place a written notice on Tenant's front door stating the name and the address or telephone number of the individual or company from which the new key may be obtained. The new key is required to be provided only during Tenant's regular business hours.

XIV. LIEN. Landlord is granted an express contractual lien, in addition to any lien provided by law, and a security interest in all property of Tenant found on the leased premises to secure the compliance by Tenant with all terms of this lease.

XV. SUBORDINATION. Landlord is hereby irrevocably vested with full power and authority to subordinate this lease to any mortgage, deed of trust, or other lien hereafter placed on the demised premises and Tenant agrees on demand to execute such further instruments subordinating this lease as Landlord may request, provided such subordination shall be on the express condition that this lease shall be recognized by the mortgagee, and the rights of Tenant shall remain in full force and effect during the term of this lease so long as Tenant shall continue to

perform all of the covenants and conditions of this lease.

XVI. INDEMNITY. Landlord and its employees and agents shall not be liable to Tenant or to Tenant's employees, patrons, visitors, invitees, or any other persons for any such injury to any such persons or for damage to personal property caused by an act, omission, or neglect of Tenant or Tenant's agents or of any other tenant of the premises of which the leased premises is a part. Tenant agrees to indemnify and hold Landlord and its employees and agents harmless from any and all claims for such injury and damages, whether the injury occurs on or off the leased premises.

XVII. CONDEMNATION. If the whole or any substantial part of the leased premises is taken for any public or quasi-public use under any governmental law, ordinance or regulation or by the right of eminent domain or should the leased premises be sold to a condemning authority under threat of condemnation, this lease shall terminate and the rent shall be abated during the unexpired portion of the lease effective from the date of the physical taking of the leased premises.

XVIII. HAZARDOUS MATERIALS. Landlord warrants and represents that the Property does not contain "Hazardous Materials", as that phrase is defined herein. For purposes of this provision, the phrase "Hazardous Materials" shall mean and include any toxic contaminated or other hazardous materials including, without limitation, unmanaged asbestos, PCB, transformers, underground storage containers, materials containing any radioactive substances, petroleum base products, paints, solvents, lead, cyandide, DDT, acids, pesticides, ammonium compounds, and any other substance forming a component part of the improvements which has heretofore or may in the future be determined to contain toxic wastes, hazardous materials, or undesirable substances injurious to the health of occupants living or working in or around the subject Property. Landlord acknowledges that current and future federal, state, and local laws and regulations may require the clean up of any such Hazardous Materials at the expense of those persons who in the past, present, or future may have had or continue to have any interest in the Property including, but not limited to, current, past and future owners and users including tenants, of the Property. The cost and expense of such clean up may be substantial. Tenant shall clean up and mitigate the effect of any Hazardous Substances and/or toxic waste which shall have been brought into the premises by Tenant after the

commencement date of the lease and shall indemnify Landlord from all liability therefrom.

XIX. BROKER'S FEE. No Broker's Fee is applicable to this agreement.

XX. NOTICES. Notices to Tenant shall be by certified mail or other delivery to: ILLINOIS SPINE INSTITUTE, SC., 500 West Golf Road, Schaumburg, Illinois, 60195. Notices to Landlord shall be by certified mail to the place where rent is payable at 117 South Cook St., # 206, Barrington, Illinois, 60010.

XXI. DEFAULT BY LANDLORD. In the event of breach by Landlord of any covenant, warranty, term or obligation of this lease, then Landlord's failure to cure same or commence a good faith effort to cure same within 10 days after written notice thereof by Tenant shall be considered a default and shall entitle Tenant either to terminate this lease or cure the default and make the necessary repairs and any expense incurred by Tenant shall be reimbursed by the Landlord after reasonable notice of repairs and expenses incurred.

XXII. SIGNS. During the last 180 days of this lease, a "For Sale" sign and/or a "For Lease" sign may be displayed on the leased premises and the leased premises may be shown at reasonable times to prospective purchasers or tenants.

XXIII. RIGHT OF ENTRY. Landlord shall have the right during normal business hours to enter the leased premises; (a) to inspect the general condition and state of repair thereof; (b) to make repairs required or permitted under this lease; or (c) for any other reasonable purpose.

XXIV. WAIVER OF BREACH. The waiver by Landlord of any breach of any provision of this lease shall not constitute a continuing waiver or a waiver of any subsequent breach of the same or a different provision of this lease.

XXV. TIME OF ESSENCE. Time is expressly declared to be of the essence in this lease.

XXVI. BINDING OF HEIRS AND ASSIGNS. Subject to the provisions of this lease

pertaining to assignment of the Tenant's interest, all provision of this lease shall extend to and bind, or inure to the benefit not only of the parties to this lease but to each and every one of the heirs, executors, representatives, successors, and assigns of Landlord or Tenant.

XXVII. RIGHTS AND REMEDIES CUMULATIVE. The right and remedies by this lease agreement are cumulative and the use of anyone right or remedy by either party shall not preclude or waive its right to use any or all other remedies. Said rights and remedies are given in addition to any other rights the parties may have by law, statute, ordinance, or otherwise.

XXVIII. LAW TO APPLY. This Agreement shall be construed under and in accordance with the laws of the State of Illinois.

XXIX. LEGAL CONSTRUCTION. In case anyone or more of the provisions contained in this agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions hereof and this agreement shall be construed as if such invalid, illegal, unenforceable provision had never been contained herein.

XXX. PRIOR AGREEMENTS SUPERSEDED. This agreement constitutes the sole and only agreement of the parties to this lease and supersedes any prior understandings or written or oral agreements between the parties respecting the subject matter of this lease.

XXXI. AMENDMENT. No amendment, modification, or alteration of the terms hereof shall be binding unless it is in writing, dated subsequent to the date hereof, and duly executed by the parties.

XXXII. ADDITIONAL INSTRUMENTS. The parties hereto will execute any and all additional documents or instruments that may be necessary or convenient to carry out the intent and purposes of the parties to this agreement.

XXXIII. QUIET ENJOYMENT. Upon Tenant paying the rent for the premises and observing and performing all the covenants, conditions, and provisions on Tenant's part to be observed and performed hereunder, the Tenant shall have quiet possession of the premises for the entire term hereof, subject to all the provisions of this lease.

XXXIV. AUTHORIZED PARTIES. Any parties executing this lease on behalf of the Landlord and the Tenant represent and warrant to each other that they are fully authorized and legally capable of executing this lease on behalf of the Landlord and Tenant respectively.

XXXV. COMMON AREAS. Tenant agrees that it will abide by, keep and observe all reasonable rules and regulations which may be established from time to time for the management for

safety, care and cleanliness of the common area and grounds, the parking of vehicles, and the preservation of good order within and upon the common area, as well as for the convenience of other occupants and tenants sharing the common area. The violations of any such rules and regulations shall be deemed a material breach of this lease by Tenant.

XXXVI. AUTOMATIC EXTENSION. The term of this lease, upon expiration of the initial ten (10) year term shall automatically be extended for two (2) additional and successive periods of five (5) years each commencing upon the day following the expiration of the primary term or first extended term; in absence of Tenant giving Landlord written notice, not less than one hundred eighty (180) days prior to the expiration date of the primary term, or first five year extension term, as applicable, that it elects to terminate said lease. The extended term(s) shall be upon the same terms and conditions, including payment of Additional Rent. The rent shall increase by 3% each year.

XXXVII. This agreement nullifies and supersedes all prior lease agreements between the parties.

IN WITNESS WHEREOF, the parties have executed this Office Lease this 11 day of May, 20 18.

TENANT:
ILLINOIS SPINE INSTITUTE, SC.
500 West Golf Road
Schaumburg, IL 60195

By: _____
Babak Lami, M.D.
President

OWNER:
UNCUS, LLC
117 South Cook St., #206
Barrington, IL 60010

By: _____
Carl N. Graf, ~~III,~~ M.D.
Manager

Attest:

By: _____
Carl N. Graf, ~~III~~, M.D.,
Secretary

Attest:

By: _____
Babak Lami, M.D.,
Manager

October 1, 2018

Specialty Surgicare, LTD.
500 West Golf Road,
Schaumburg, Illinois 60195

Re: Letter of Intent to Sub-Lease
500 West Golf Road, Schaumburg, Illinois 60195

Dear Specialty Surgicare, LTD.,

This letter of intent ("LOI") with an effective date of October 1, 2018 is between Illinois Spine Institute, SC. and Specialty Surgicare, LTD.. This LOI does not constitute a contract between the parties and is not intended to be binding on either party. Specialty Surgicare, LTD. acknowledges that as a sub-leasee it is subject to all terms and conditions contained in the lease (Attachment A) between Illinois Spine Institute, SC. and UNCUS, LLC.

Total Area Required: 2881 SF (24.5% of total area)

Use: Ambulatory Surgical Treatment Center

Sub-Lease Term: 1st day of the Month following CON approval Date and for a period of 5 years thereafter.

Lease Commencement: 1st day of the Month following CON approval date

Lease Rate: Subject to 24.5% of payment terms listed in page 1 section I underlying lease between UNCUS, LLC and Illinois Spine Institute, SC.

Lease Terms: Specialty Surgicare, LTD. acknowledges that as a sub-leasee it is subject to all terms and conditions contained in the lease between Illinois Spine Institute, SC. and UNCUS, LLC.

This LOI does not constitute a contract between the parties and is not intended to be binding on either party. This LOI is intended solely as an expression of terms upon which the parties will endeavor to negotiate a formal and binding lease agreement which meets with the approval of both parties respective counsel. In no event shall either party incur any liability whatsoever of its failure to execute a formal and binding lease agreement or for any other reason.

IN WITNESS WHEREOF, this Agreement has been executed by **Specialty Surgicare, LTD.** and **Illinois Spine Institute, SC.** on the date first above written.

Specialty Surgicare, LTD.

By: _____ MD
Printed Name: Babak Lami
Title: President

Illinois Spine Institute, SC

By: _____ MD
Printed Name: Babak Lami
Title: President

File Number 7036-926-5

STATE OF ILLINOIS

OFFICE OF THE SECRETARY OF STATE

To all to whom these Presents Shall Come, Greeting:

I, Jesse White, Secretary of State of the State of Illinois, do hereby certify that I am the keeper of the records of the Department of Business Services. I certify that

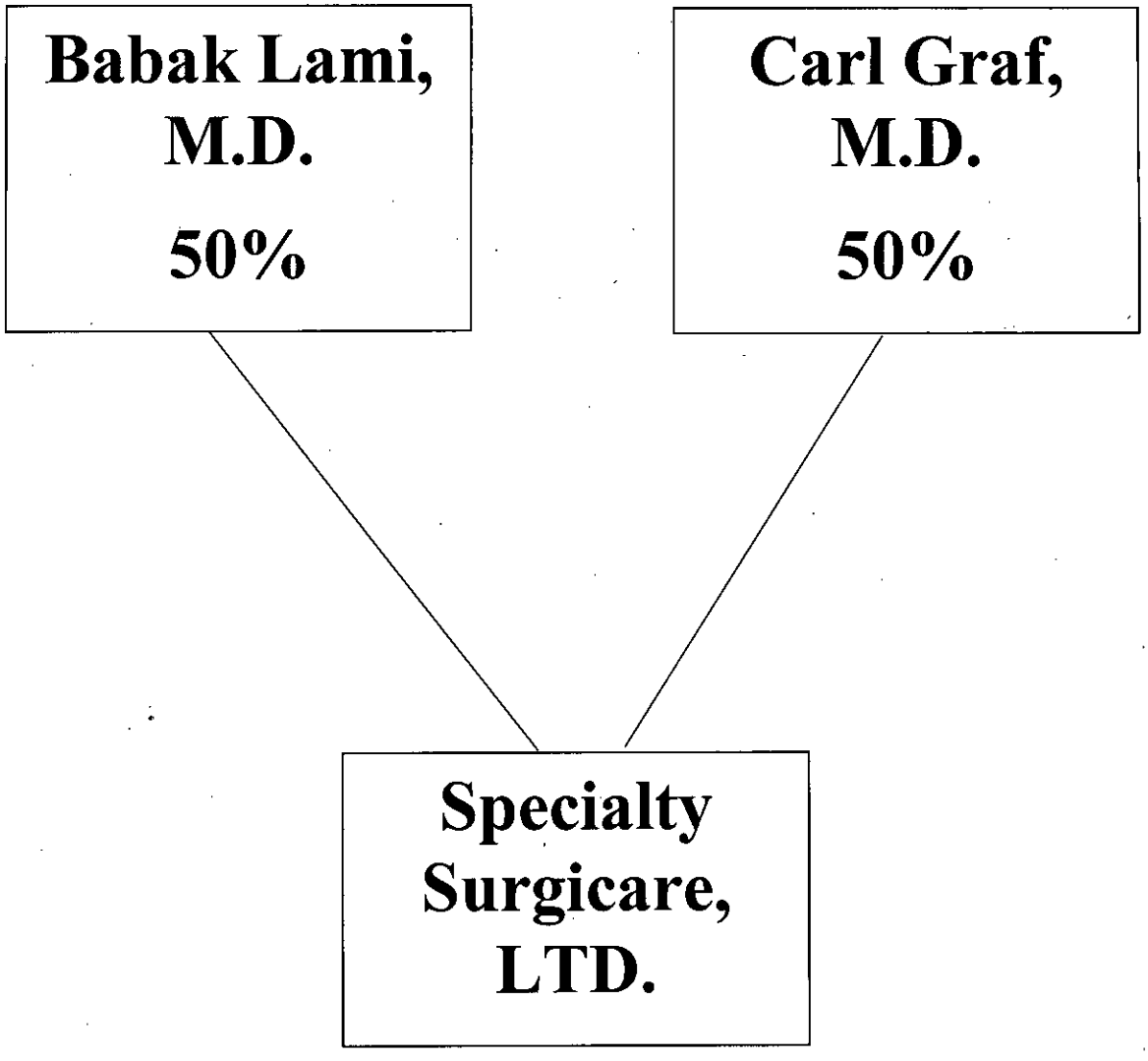
SPECIALTY SURGICARE, LTD., A DOMESTIC CORPORATION, INCORPORATED UNDER THE LAWS OF THIS STATE ON SEPTEMBER 25, 2015, APPEARS TO HAVE COMPLIED WITH ALL THE PROVISIONS OF THE BUSINESS CORPORATION ACT OF THIS STATE RELATING TO THE PAYMENT OF FRANCHISE TAXES, AND AS OF THIS DATE, IS IN GOOD STANDING AS A DOMESTIC CORPORATION IN THE STATE OF ILLINOIS.

In Testimony Whereof, *I hereto set my hand and cause to be affixed the Great Seal of the State of Illinois, this* 16TH *day of* SEPTEMBER *A.D.* 2018 .

Authentication #: 1825900478 verifiable until 09/16/2019
Authenticate at: http://www.cyberdriveillinois.com

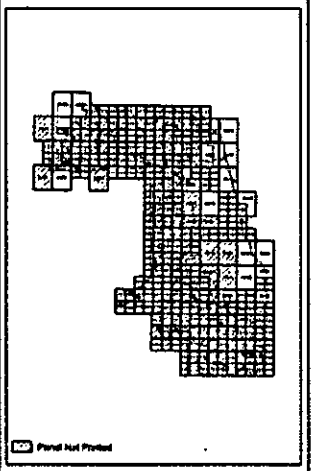
Jesse White

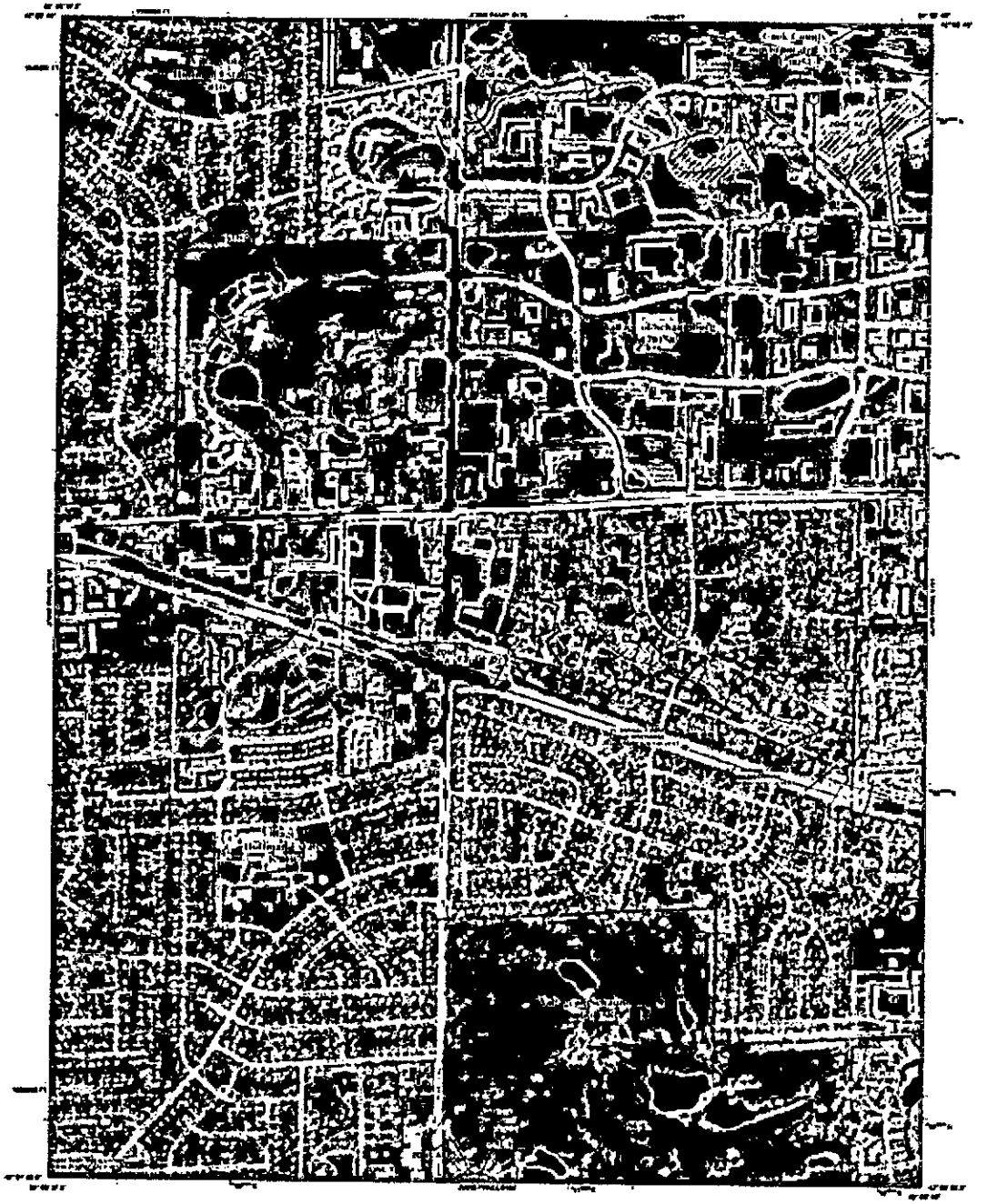
SECRETARY OF STATE


Babak Lami, M.D.
50%
Carl Graf, M.D.
50%
Specialty Surgicare, LTD.

NOTES TO USERS

PANEL INDEX





LEGEND

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0187J

FIRM

FLOOD INSURANCE RATE MAP

COOK COUNTY, ILLINOIS AND INCORPORATED AREAS

PANEL 187 OF 832

MAP NUMBER 17031C0187J

MAP REVISED AUGUST 19, 2008

ILLINOIS
DEPARTMENT OF NATURAL RESOURCES

Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Bruce Rauner, Governor
Wayne A. Rosenthal, Director

FAX (217) 524-7525

Cook County
Schaumburg
CON - Lease to Establish a Limited Specialty Surgery Center, Illinois Spine Institute
500 W. Golf Road
SHPO Log #009082118

October 5, 2018

Juan Morado
Benesch, Friedlander, Coplan and Aronoff LLP
333 W. Wacker Dr., Suite 1900
Chicago, IL 60606

Dear Mr. Morado:

This letter is to inform you that we have reviewed the information provided concerning the referenced project.

Our review of the records indicates that no historic, architectural or archaeological sites exist within the project area.

Please retain this letter in your files as evidence of compliance with Section 4 of the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420/1 et. seq.). This clearance remains in effect for two years from date of issuance. It does not pertain to any discovery during construction, nor is it a clearance for purposes of the Illinois Human Skeletal Remains Protection Act (20 ILCS 3440).

If you have any further questions, please call 217/782-4836.

Sincerely,

Robert F. Appleman
Deputy State Historic
Preservation Officer

77 Ill. Admin. Code Section 1120.110 Project Costs and Sources of Funds

Project Costs and Sources of Funds			
USE OF FUNDS	**CLINICAL**	**NONCLINICAL**	**TOTAL**
Preplanning Costs	0	0	0
Site Survey and Soil Investigation	0	0	0
Site Preparation	0	0	0
Off Site Work	0	0	0
New Construction Contracts	0	0	0
Modernization Contracts	0	0	0
Contingencies	0	0	0
Architectural/Engineering Fees	0	0	0
Consulting and Other Fees	0	$75,000	0
Movable or Other Equipment (not in construction contracts)	0	0	0
Bond Issuance Expense (project related)	0	0	0
Net Interest Expense During Construction (project related)	0	0	0
Fair Market Value of Leased Space or Equipment	$261,100.56	$98,690.76	$359,791.32
Other Costs To Be Capitalized	0	0	0
Acquisition of Building or Other Property (excluding land)	0	0	0
TOTAL USES OF FUNDS	**$261,100.56**	**$173,690.76**	**$434,791.32**
SOURCE OF FUNDS	**CLINICAL**	**NONCLINICAL**	**TOTAL**
Cash and Securities	$261,100.56	$173,690.76	$434,791.32
Pledges	0	0	0
Gifts and Bequests	0	0	0
Bond Issues (project related)	0	0	0
Mortgages	0	0	0
Leases (fair market value)	0	0	0
Governmental Appropriations	0	0	0
Grants	0	0	0
Other Funds and Sources	0	0	0
TOTAL SOURCES OF FUNDS	**$261,100.56**	**$173,690.76**	**$434,791.32**

Cost Space Requirements

The entire building where the ASTC will be located is a total of 11,749 gross square feet. Within the building is a medical office space that is made up of 8,253 gross square feet, and an adjoining vacant retail space with a separate entryway, mechanicals and distinct address that is vacant. The ASTC itself will occupy a total of 2,881 gross square feet. The ASTC space is described in further detail in the chart below.

		Gross Square Feet		Amount of Proposed Total Gross Square Feet That Is:			
Dept. / Area	**Cost**	**Existing**	**Proposed**	**New Const.**	**Modernized**	**As Is**	**Vacated Space**
REVIEWABLE							
Ambulatory Surgery	$261,100.56	2090	2090	n/a	n/a	2090	n/a
Total Clinical	$261,100.56	2090	2090	n/a	n/a	2090	n/a
NON REVIEWABLE							
Administrative	$173,690.76	791	791	n/a	n/a	791	n/a
Total Non-clinical	$173,690.76	791	791	n/a	n/a	791	n/a
TOTAL	**$434,791.32**	**2881**	**2881**	**n/a**	**n/a**	**2881**	**n/a**

77 Ill. Admin. Code Section 1110.110 (a) Background of the Applicant

Specialty Surgicare, LTD. possesses the qualifications, background, and character necessary to adequately provide medical services for the community. Specialty Surgicare, LTD. does not own or operate any other health care facilities. Dr. Babak Lami and Dr. Carl Graf do not own or operate any other health care facilities in the state of Illinois.

Please see attached certification letter that provides the requisite authorization to the Illinois Health Facilities and Services Review Board (HFSRB) and Illinois Department of Public Health (IDPH) to access all documents necessary to verify this information.

Dr. Babak Lami is a Board Certified Orthopedic Spinal Surgeon, who has been practicing medicine for over 16 years in the state of Illinois. Dr. Lami has a background in Chemical Engineering and is a member of the American Academy of Orthopaedic Surgeons, American Academy of Orthopaedic Surgeons, North American Spine Society, and the American Board of Independent Medical Examiners.

Dr. Carl Graf is also a Board Certified Orthopaedic Spinal Surgeon and has been a practicing physician for over 18 years. Dr. Graf is a Fellow of the American Academy of Orthopaedic Surgeons, American Board of Independent Medical Examiners, American Board of Orthopaedic Surgeons, and North American Spine Society. Dr Graf was appointed to the United States Food and Drug Administration Committee for the Orthopaedic and Rehabilitation Devices Panel. Dr. Graf is no stranger to serving vulnerable patient populations, having been the Chief Resident at Cook County Hospital during his residency, and he continues to be an avid volunteer at the American Academy of Orthopaedic Surgery Learning Center. Dr. Graf regularly speaks at professional conferences, writes scholarly articles, and is a published author in his practice area. His views and insights on cutting edge orthopedic procedures are sought by numerous professional organizations and fellow colleagues.

With a specific focus on wanting to provide care for patients closer to their homes, Drs. Lami and Graf's goal is always complete and compassionate care. From cervical and lumbar disc herniations to spinal fractures and scoliosis, their office offers global care for the spine. These physicians not only treat their own patients but spend time educating their colleagues on the newest innovations in spinal and pain management care. They offer comprehensive treatments for spinal disorders from spinal injections and physical therapy, and utilize the most advanced surgical techniques. Approval of this project would allow Drs. Lami and Graf to increase the number of services and procedures they can perform at facility. It would increase access to care for the existing patient base at the facility and the community at large.

Specialty SurgiCare, LTD
500 West Golf Road, Schaumburg, IL 60195

October 18, 2018

Courtney Avery
Board Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, 2nd Floor
Springfield, Illinois 62761

Dear Board Administrator Avery,

On behalf of Specialty Surgicare, LTD., this letter is intended to act as both the requisite certification and authorization to the Illinois Health Facilities and Services Review Board and the Illinois Department of Public Health (IDPH) to access documents necessary to verify the information submitted including, but not limited to:

- Official records of IDPH or other state agencies;
- The licensing or certification records of other states; and
- The records of nationally recognized accreditation organizations.

I further verify that, Specialty Surgicare, LTD. does not own any other healthcare facilities and has had no adverse action in the past three years prior to the filing of this application.

I hereby certify this is true and based upon my personal knowledge and under penalty of perjury and in accordance with 735 ILCS 5/1-109.

Sincerely,

Babak Lami, M.D.
Specialty Surgicare, LTD.

Carl N. Graf, MD, FAAOS

Board Certified Orthopaedic Spinal Surgeon
Fellow of the American Academy of Orthopaedic Surgery
Diplomat of the American Board of Orthopaedic Surgeons
Board Certified Independent Medical Examiner

Illinois Spine Institute
Schaumburg & Crystal Lake, Illinois
500 West Golf Road, Suite 101
Schaumburg, Illinois 60195
Ph: (847) 303-1200 Fax: (847) 519-9760

www.ilspine.com

A specialist in Spinal Surgery, Dr. Graf's expertise focuses on caring for patients with degenerative, traumatic, neoplastic, and infectious conditions of the cervical, thoracic, and lumbar spine. Areas of research include the study of spinal fusion and the use of bone morphogenic protein. Special interests include minimally invasive spinal surgery as well as spinal fusion alternatives and motion preservation procedures.

CERTIFICATION

Board Certified Orthopaedic Spinal Surgeon – The American Board of Orthopaedic Surgery

Fellow of the American Academy of Orthopaedic Surgeons

American Board of Independent Medical Examiners – Board Certified Independent Medical Examiner

American Medical Association Guides to the Evaluation of Permanent Impairment, Sixth Edition – ABIME Board Certified

CLINICAL PRACTICE

Illinois Spine Institute, S.C. – 1/2008 - Present

Greenleaf Orthopaedic Associates, S.C. – 9/2006-12/2007 - Spine and Orthopaedic Surgery

UNITED STATES GOVERNMENT EXECUTIVE BRANCH APPOINTMENT

United States Food & Drug Administration - Special Government Appointee. Appointed Committee Member for the Orthopaedic and Rehabilitation Devices Panel, Center for Devices and Radiological Health (CDRH), Section of the Food and Drug Administration. Responsibilities

include a 4 year term with responsibilities of oversight and review of orthopaedic and spinal medical devices submitted for FDA approval.

HOSPITAL AFFILIATIONS

Alexian Brothers Medical Center – Elk Grove Village, Illinois.

St. Alexius Medical Center – Hoffman Estates, Illinois.

Centegra Memorial Medical Center – Woodstock, Illinois.

EDUCATION

OrthoIndy / Indiana Orthopaedic Hospital –Indianapolis, IN
Combined Orthopaedic & Neurosurgical Spine Surgery Fellowship; 2005-2006

University of Illinois at Chicago – Chicago, IL
Orthopaedic Surgery Residency; 2000-2005

Loyola University Stritch School of Medicine – Maywood, IL
Doctor of Medicine; 1996 - 2000

Augustana College – Rock Island, IL
B.A. - Pre-Medicine Major; 1992 - 1996

PROFESSIONAL ORGANIZATIONS

American Academy of Orthopaedic Surgery –Fellow and Active Member

American Board of Orthopaedic Surgeons – Diplomat and Active Member

North American Spine Society – Active Member

HONORS & ACTIVITIES

Miller Orthopaedic Surgery Scholarship – Awarded for accomplishments in Orthopaedic Surgery & Research

Loyola University Stritch School of Medicine Surgical Honors Society – Awarded for research and accomplishments in surgery and research at Loyola University Stritch School of Medicine

American Medical Association
Medical Student Section Member
Loyola University Stritch School of Medicine Delegate to the American Medical Association House of Delegates

Carl N. Graf, MD, FAAOS

HONORS & ACTIVITIES (cont.)

Central Curriculum Authority Student Representative – Loyola University Stritch School of Medicine – Responsible for representing the student body on issues concerning the medical school curriculum.

RESIDENCY ACTIVITIES AND HONORS

Chief Resident – Orthopaedic Surgery, Cook County Hospital, Chicago, Illinois 2005-2006

Orthopaedic Surgery Residency Class Representative– University of Illinois at Chicago

Volunteer – American Academy of Orthopaedic Surgery Learning Center, Rosemont, Illinois

RESEARCH & PUBLICATIONS

Epidural Steroid Injections for the Treatment of Spinal Stenosis. Carl N Graf MD, Richard Lim MD. Senior Thesis; University of Illinois at Chicago, Dept of Orthopaedic Surgery, 6/2005.

Book Chapter: Spine Trauma. A Vaccaro, et al. Chapter: Lateral Compression Injuries of the Cervical Spine. Carl N Graf, MD, David Schwartz, MD.

A Sheep Study Comparing Two Different Preparations of rhBMP-2 to Autograft in an Instrumented Lumbar Corpectomy and Spinal Reconstruction Model. ABSTRACT NO: 339. Presented at the 2007 Congress of Neurological Surgeons Annual Meeting.

A Sheep Study Evaluating Fusion Rates Using Autograft in an Instrumented Lumbar Corpectomy Spinal Reconstruction Model. ABSTRACT NO: 377. Presented at the 2007 Congress of Neurological Surgeons Annual Meeting.

A Sheep Study Evaluating Fusion Rates Using rhBMP-2 in a Morselized Absorbable Collagen Sponge (ACS) Carrier Combined with Resorbable Ceramic Granules in an Instrumented Lumbar Corpectomy Spinal Reconstruction Model. ABSTRACT NO: 438. Presented at the 2007 Congress of Neurological Surgeons Annual Meeting.

A Sheep Study Evaluating Fusion Rates Using rhBMP-2 in a Compression Resistant Matrix (CRM) carrier in an Instrumented Lumbar Corpectomy Spinal Reconstruction Model. ABSTRACT NO: 457. Presented at the 2007 Congress of Neurological Surgeons Annual Meeting.

Can Recombinant Human Bone Morphogenetic Protein Be Used Successfully with Femoral Ring Allografts for Standalone Anterior Lumbar Interbody Fusion? A Quantitative Computed Tomography Study. ABSTRACT NO: 466. Presented at the 2007 Congress of Neurological Surgeons Annual Meeting.

A Sheep Study Comparing Two Different Preparations of rhBMP-2 to Autograft in an Instrumented Lumbar Corpectomy and Spinal Reconstruction Model" Indiana Orthopaedic Society. Presented at the Indiana Orthopaedic Society. April 28,2007.

RESEARCH & PUBLICATIONS (cont.)

Can Recombinant Human Bone Morphogenetic Protein Be Used Successfully with Femoral Ring Allografts with Standalone Anterior Lumbar Interbody Fusions? A Quantitative Computed Tomography Study. Presented at the Indiana Orthopaedic Society. April 28, 2007.

A Sheep Study Comparing Two Different Preparations of rhBMP-2 to Autograft in an Instrumented Lumbar Corpectomy and Spinal Reconstruction Model. Podium presentation at the Basic Science Focus Forum of the Orthopaedic Trauma Association's Annual Meeting, October 17-18, 2007, at the Hynes Convention Center in Boston, Massachusetts, USA.

A Sheep Study Comparing Two Different Preparations of rhBMP-2 to Autograft in an Instrumented Lumbar Corpectomy and Spinal Reconstruction Model. Poster presentation at the 23rd Annual Meeting of the Orthopaedic Trauma Association, October 18-20, 2007 at the Hynes Convention Center in Boston, Massachusetts, USA.

Adolescent Idiopathic Scoliosis, Instrumentation Type and Post-Op Progression. Carl N Graf MD, Jason Zook MD. Presented at the UIC Clinical Research Conference 6/2004.

An Orthopaedic Review: Nickel Allergy Associated with Implanted Hardware – Carl N Graf, William Hopkinson MD , Stephen Rabin MD. Loyola Orthopaedic Journal 2000; Vol IX, Pgs. 1621.

Poster Presentation: Nickel Allergy Associated with Implant Hardware – Carl N Graf MD, Stephen Rabin MD, William Hopkinson MD. Advances in Surgery National Conference 2001.

Immune Response to Implants. Rabin SI, Graf CN, Hopkinson WJ, Hallab NJ.eMedicine from WebMD. Updated January 08, 2009.
Available at: http://emedicine.medscape.com/article/1230696-overview

Locked Volar Distal Radius Plating – Clinical and Radiographic Outcomes – Carl N Graf MD, David Bierbrauer, MD Alfonzo Mejia, MD. Presented at the UIC Clinical Research Conference 6/2002.

Management of Open Fractures of the Hand – Carl N Graf, MD, Mark Gonzalez, MD, et al. Journal of the American Society for Surgery of the Hand, Vol 3, #4; Nov 2003.

Clinical Results of Hybrid Meniscal Repair. Carl N Graf MD, Dennis Park MD, Mark Hutchinson MD. Presented at the UIC Clinical Research Conference, 6/2003.

Book Chapter: Mutilating Injuries of the Hand: Picking Up the Pieces. J Weinzweig, et al. Chapter: Ulnar Mutilating Injuries, Mark H Gonzalez MD, Carl N Graf MD, et al. Elsevier Health Science, February 2005, Pgs. 87-99.

Babak Lami, M.D.
Board Certified Orthopaedic Spinal Surgeon
Schaumburg: 500 West Golf Road, Suite 101 Schaumburg, Illinois 60195
Crystal Lake: 360 Station Drive, Suite 200, Crystal Lake, Illinois 60014
Phone: (847) 303-1200 • Fax: (847) 519-9760 • www.ilspine.com

Interests

Pediatric and adult spinal surgery

Education

Leatherman Spine fellowship
Departments of Neurological and Orthopaedic Surgery
University of Louisville- Louisville, Kentucky
8/2002-8/2003

University of Illinois- Chicago
Resident in Orthopaedic Surgery, *1997-2002*

The Chicago Medical School
Doctor of Medicine, *1993-1997*

University of Wisconsin-Madison
Bachelor of Science in Chemical Engineering, *1987-1991*

Academic Achievement

The University of Illinois-Department of Orthopedic Surgery
Leo Weinstein award for "Excellence in Patient Care"
Scored 92 percentile, American Board of Orthopaedic Surgeon Examination

The Chicago Medical School
Alpha Omega Alpha Honor Medical Society (AOA)

The University of Wisconsin-Madison
Graduated with honors in Chemical Engineering
Dean's list for eight semesters

Elk Grove High School, Elk Grove, IL
Graduated with honors

Research Experience

Preliminary report of a new Occipito-Cervical technique, won first place in Resident Clinical Research presentation, Chicago 2001

Results of medialized acetabular cup in total hip revision, presented in Resident Clinical Research Conference, Chicago 2000

Employment

Founder, "Illinois Spine Institute, S.C."

Private practice, August 2003-present

Research Engineer, Kimberly-Clark Corporation, Neenah-Wisconsin, 1991-1993

Membership

Diplomate of the American Board of Orthopaedic Surgeons
Member of the American Academy of Orthopaedic Surgeons
Member of the North American Spine Society
Member of the American Board of Independent Medical Examiners

77 Ill. Admin. Code Section 1110.110(b)(d) Purpose of the Project

Attachment 12

The purpose of this project is to provide the existing patient base of the Illinois Spine Institute and the surrounding community with access to pain and orthopedic procedures that they need to sustain a viable quality of life. The vast majority of these patients are already being treated by Drs. Lami and Graf. As experts in their respective fields, the doctors also receive referrals from a wide range of physicians in the same community as the proposed site of the facility.

There has been immense growth in the number of outpatient spine procedures performed in ASTCs. In a ten year period from 2005-2015, nearly 45% of all spine related procedures were performed on an outpatient basis. The Centers for Medicare and Medicaid (CMS) has continued to make changes that have fundamentally altered the reimbursement models available for outpatient spine procedures. Since 2015 there have been 10 new procedure codes added to the ASTC payable list by CMS. This is the clearest evidence yet that CMS is pushing to have these procedures performed in a the lower cost ASTC setting.

A study recently published in *Surgical Neurology International* showed that the cost associated with an outpatient single-level cervical disc arthroplasty were a stunning 84% less than the same inpatient procedure in a hospital surgical suite. Additionally, outpatient single level cervical anterior discectomy with fusion using allograft and plate proved to cost 62% less than the same procedure in an inpatient hospital surgical suite.

Establishing an ASTC will provide patients with increased options for spinal implants and other procedures. It also allows surgeons greater control over time spent in the operating room. These factors alone increase efficiency of an ASTC while maintaining quality, increasing access to care for patients, and providing services at a greatly reduced cost.

Establishment of this ASTC is designed to allow Illinois Spine Institute patients the ability to receive quality care in a facility where they are familiar with the doctors and staff, on an outpatient basis. We know that CMS does not reimburse certain procedures unless they are performed in a ASTC of hospital surgical suite setting. This reduces the available options for patients and puts them in the position of needing to see a different doctor or take their chances with obtaining an appointment in a hospital surgical suite.

The concern with scheduling an appointment in a hospital surgical suite is a very common one with procedures that are reimbursed at a lower rate. This makes hospital surgical suites ineffective at accommodating the majority of the procedures that can be performed at the Illinois Spine Institute. As such, Drs. Lami and Graf and their patients have often experienced being bumped or rescheduled by a hospital.

Generally speaking, outpatient spine care offers several other benefits that have not yet been mentioned. Procedures in the outpatient setting are preferred by patients who desire the ability

to be treated quickly and given a plan of treatment that allows them to return to regular daily life. Outpatient spine surgery also allows the significant improvement in anesthesia, and the ability to take advantage of improved technology at a lower cost than in the inpatient hospital surgical suite. The aforementioned benefits are consistent with the recent changes by CMS to improve patient access, increase efficiency, and contain costs.

We have included several articles to provide additional documentation about the current trends in spinal care that were previously mentioned. With our existing patient base and anticipated referrals we expect to meet the state's target utilization standards.

Finally, many of the pain management procedures offered at this facility are designed to lessen the dependence these patients have on opioid based pain medication. Overreliance on opioid based pain medications can lead to addiction and exacerbate other medical conditions. These procedures can provide a longer term solution to chronic pain conditions. Establishing this surgery center, focused on the pain management and orthopedic needs of the community solves that problem these conditions present and ensures there is available care for those in need.

NEUROSURGICAL FOCUS

Neurosurg Focus 44 (5):E11, 2018

Outpatient spine surgery: defining the outcomes, value, and barriers to implementation

Arjun Vivek Pendharkar, MD, Maryam Nour Shahin, BS, Allen Lin Ho, MD, Eric Scott Sussman, MD, David Arnold Purger, MD, PhD, Anand Veeravagu, MD, John Kevin Ratliff, MD, and Atman Mukesh Desai, MD

Department of Neurosurgery, Stanford University, Stanford, California

Spine surgery is a key target for cost reduction within the United States health care system. One possible strategy involves the transition of inpatient surgeries to the ambulatory setting. Lumbar laminectomy with or without discectomy, lumbar fusion, anterior cervical discectomy and fusion, and cervical disc arthroplasty all represent promising candidates for outpatient surgeries in select populations. In this focused review, the authors clarify the different definitions used in studies describing outpatient spine surgery. They also discuss the body of evidence supporting each of these procedures and summarize the proposed cost savings. Finally, they examine several patient- and surgeon-specific considerations to highlight the barriers in translating outpatient spine surgery into actual practice.

https://thejns.org/doi/abs/10.3171/2018.2.FOCUS17790

KEYWORDS anterior cervical discectomy and fusion; cervical disc arthroplasty; lumbar laminectomy; transforaminal lumbar interbody fusion; minimally invasive surgery; ambulatory surgery; cost; outcomes; outpatient

Spine surgery is one of the most impactful targets for reducing costs within the United States health care system.[32] An estimated $90 billion is spent each year on the diagnosis and management of low-back pain alone.[28] As summarized by Resnick et al., spinal disorders are an ideal target for cost reduction because of their high prevalence and significant contribution to morbidity- and disability-related costs.[36] Furthermore, there is significant variability in the treatment paradigms for spinal disorders—representing the entire spectrum of pain medications, acupuncture, massage therapy, steroid injections, surgical decompression and fusion, and beyond. It is the enormous clinical burden of spinal disease paired with treatment heterogeneity that creates an opportunity to empirically define real value and produce savings for the health care system.

One promising but controversial cost reduction strategy involves transitioning surgical procedures to an outpatient setting. More than 54 million outpatient procedures are performed annually in the United States. Among Medicare beneficiaries, rates of outpatient surgery have increased by 40% in the last 10 years. And the number of ambulatory surgery centers has grown by 60% within the same time period.[21] Although eye surgeries, arthroscopic procedures, peripheral nerve cases, and soft tissue cases represent the majority of ambulatory operations, an increasing proportion of spine surgeries has transitioned to the outpatient setting.[2,5,7] Lumbar laminectomy with or without discectomy, lumbar fusion, anterior cervical discectomy and fusion, and cervical disc arthroplasty all represent promising candidates for outpatient surgeries in select populations.

In this focused review, we clarify the different definitions used in studies describing outpatient spine surgery. We also discuss the body of evidence supporting the transition of each of these procedures to an outpatient setting and summarize the proposed cost savings. Finally, we examine several patient- and surgeon-specific considerations to highlight the barriers in translating outpatient spine surgery into actual practice.

Definitions

Within the current body of literature describing outpatient spine surgery, there exists a heterogeneous and ill-

ABBREVIATIONS ACDF = anterior cervical discectomy and fusion.

SUBMITTED December 28, 2017. **ACCEPTED** February 2, 2018.
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defined set of terms that obscures true understanding of the outcomes and cost savings. Fundamentally, any time a patient is discharged from the hospital and has not been admitted to an inpatient ward, they have undergone an outpatient surgery. However, from a reimbursement perspective, there is a clear delineation between a patient whose recovery is observed within a reasonable amount of time before discharge (for example, 4–6 hours in the *Medicare Claims Processing Manual*, Chapter 4, Section 290.2.2) and a patient who is observed for an extended period of time (< 24 hours). Both of these patient encounters, from an outcomes perspective, can be grouped together as an outpatient procedure but carry different hospital utilization costs.

Similarly, utilization differs between an outpatient procedure performed in association with a hospital and one performed at a freestanding ambulatory surgery center. Idowu et al. examined this difference and found that, although there has indeed been a dramatic increase in the number of hospital-associated outpatient spine operations, there has been a significantly less pronounced increase in spine surgery at freestanding ambulatory centers.[23] In general, the lack of granularity regarding these definitions represents a significant limitation of the literature describing outpatient outcomes.

Outcomes

Lumbar Laminectomy and Discectomy

Lumbar laminectomy with or without discectomy remains the most common spine operation performed in the United States and was one of the earliest procedures to be successfully transitioned to the outpatient setting (Table 1). Several groups have reported clinical series describing favorable outcomes.[8,10,22,25,33,47] Helseth et al. reported on a series of 1073 consecutive patients undergoing lumbar procedures at a freestanding neurosurgical clinic with a successful discharge rate of 99.8% on the day of surgery.[19] No patients died within 30 days, and the 90-day readmission rate was 1.5%. Nine patients (0.6%) suffered a postoperative hematoma, which was recognized and evacuated postoperatively, and these patients were subsequently discharged the same day. Notably, this study was conducted in Oslo, Norway, in a health care ecosystem distinct from that of the United States. Another group of investigators studied 212 consecutive patients in the United States, who had undergone a first operation for lumbar disease; the authors reported the overall success rate at 2 years as 75%–80%, as defined by the visual analog scale and Oswestry Disability Index.[4] In their cohort, the average hospital stay was 5 hours, and only 1 patient (0.5%) was admitted to the inpatient service following surgery. Best and Sasso analyzed outcomes for 233 consecutive patients 65 years of age or older who underwent outpatient lumbar decompression, finding an inpatient admission conversion rate of 4.1% and an overall complication rate of 7.1%.[8] In addition to single-center cohort studies, the overall trends and outcomes for lumbar laminectomy and discectomy have been analyzed using large surgical databases. Pugely and colleagues performed a propensity score–matched analysis of 4310 lumbar discectomy cases in the American College of Surgeons database.[34] Interestingly, in the matched cohort, the inpatient group had a significantly higher rate of complications (OR 1.521) even after adjusting for potential confounders. Moreover, an advanced age, diabetes, and operative times longer than 150 minutes were independent predictors of a postoperative complication. All data taken together, lumbar decompression has the strongest evidence for safety in the outpatient setting.

Lumbar Fusion

The literature regarding lumbar fusion in the outpatient setting is more limited than that regarding decompression with or without discectomy (Table 2). Conceptually, as minimally invasive fusion techniques continue to evolve, this is a promising group of operations to transition to outpatient procedures. Several smaller cohort studies have reported favorable outcomes from minimally invasive transforaminal lumbar interbody fusion and posterior fusion performed in the outpatient setting.[16] One technical modification to posterior fusion includes the use of midline cortical bone trajectory pedicle screws to reduce the amount of muscle dissection and tissue destruction without sacrificing fusion rates.[12] Another promising avenue involves the use of lateral fusion techniques, which may also reduce postoperative pain and thus enable earlier discharge. Smith et al. performed a retrospective analysis of 1033 patients treated with minimally invasive lateral interbody fusion and grouped patients according to length of stay.[39] They found that a younger age, lower body mass index, less advanced disease, and higher preoperative hemoglobin levels were predictive factors for discharge within 24 hours. In the prospective arm, the authors performed 54 lateral and 18 posterior fusions in an ambulatory setting with no transfers to an inpatient facility. Two additional patients (3.7%) visited the emergency department within 30 days. Another author group prospectively compared 70 consecutive patients undergoing lateral fusion in either an inpatient or outpatient setting.[11] There were no significant baseline differences in characteristics between the two cohorts, including age, body mass index, or pathological level treated. Additionally, fusion was achieved in all patients. Between the two groups, the outpatient cohort benefited from significant improvement in the Oswestry Disability Index, less blood loss, and shorter operative time. Overall, these studies suggest that for young, healthy patients, a lateral fusion may be well tolerated with same-day discharge. However, the overall reported readmission rates tended to be higher than those in the lumbar decompression and/or discectomy literature.

Anterior Cervical Discectomy and Fusion

There is a growing body of evidence in support of anterior cervical discectomy and fusion (ACDF) performed in the outpatient setting (Table 3). However, unlike in lumbar surgery, the specter of neck hematoma and airway compromise creates an additional barrier to changes in practice.

The first reports of outpatient ACDF were small, single-surgeon feasibility studies reporting on fewer than 100 patients undergoing 1- or 2-level surgery with same-

TABLE 1. Summary on the safety of and outcomes for outpatient lumbar laminectomy and discectomy

Authors & Year	Study Information	Type of Surgery	Observations/Conclusions	Outcomes
Asch et al., 2002	Single institution, prospective, 212 outpatients	Lumbar microdiscectomy	Workers' comp & age had negative impact on outcome	Success rate 75%–80% at 2 yrs, 1 patient (0.5%) admitted to inpatient service after surgery
Best & Sasso, 2007	2 surgeons, patient age ≥65 yrs, study dates 1992–2001	Lumbar decompression: 1377	Lumbar spine surgical decompression safe as outpatient procedure in elderly patients	Required hospital stay: 30 (11.4%), converted to inpatient due to complication: 10 (4.1%), any complication: 4 (7.1%), 72.5% patients who completed questionnaire said they would repeat outpatient procedure; 69.1% said surgical outcome produced good or better function than preop level
Walid et al., 2010	Reviewed patients who went through common process of surgery venue selection: 97 outpatients, 578 inpatients	ACDF (levels unspecified), lumbar microdiscectomy, lumbar decompression w/ or w/o fusion	Mean age older in inpatients ($p < 0.001$); prevalence of DM, CHF, heart disease, CABG/stent/balloon angioplasty, knee problems, & depression higher in inpatients ($p < 0.05$); prevalence of COPD & history of stroke higher in outpatient cervical surgery cohort ($p < 0.05$)	Outpatients: any complication 1 (1.0%), postop infection 1 (1.0%); inpatients: any complication 16 (2.8%), postop infection 16 (2.8%); all patients w/ complications obese
Pugely et al., 2013	NSQIP, study dates 2005–2010, 1652 (38.3%) outpatients, 2658 (61.7%) inpatients	Single-level lumbar discectomy	Complication rate higher in inpatients ($p < 0.0001$); age, DM, preop wound infection, blood transfusion, op time, & inpatient hospital stay all independent risk factors for short-term complication; surgeons should consider outpatient surgery in appropriate candidates	Complication rates: 3.5% outpatients, 6.5% inpatients
Lang et al., 2014	Two academic hospitals, study dates 2008–2012, 368 after outpatient protocol, 643 before outpatient protocol	Lumbar discectomy	w/ implementation of outpatient protocol, outpatient lumbar discectomy safe & effective; improving periop pain management & ensuring cases scheduled early in the day may decrease admissions	Before outpatient protocol: admission rate 96.4%, 30-day readmission 2.3%, ED visit w/o admission 1.1%; after outpatient protocol: admission rate 50.3%, 30-day readmission 4.6%, ED visit w/o admission 2.2%; most common reasons for admission after protocol implemented: uncontrolled pain 18.9%, late op start times 14.1%, comorbidities 13%, intraop complications (almost all dural tears) 11.9%
Best et al., 2015	National Survey of Ambulatory Surgery	Discectomy, laminectomy, fusion	Ambulatory surgeries for intervertebral disc disorders & spinal stenosis increased btwn 1994 & 2006	
Helseth et al., 2015	Private clinic, single institution, prospectively recorded complications, study dates 2008–2013, 1449 outpatients	Microsurgical decompression: lumbar 1073, cervical 376	In favor of outpatient spinal surgery for properly selected patients	Surgical mortality: 0 (0%), any complication: 51 (3.5%), same-day admission: 3 (0.2%), admission w/in 3 mos: 22 (1.5%), hematoma: 9 (0.6%), neurological deterioration: 4 (0.3%), deep wound infection: 13 (0.9%), dural lesion & CSF leakage: 15 (1.0%), persistent dysphagia: 2 (0.1%), persistent hoarseness: 2 (0.1%), severe pain/headache: 6 (0.4%), reoperation: 67 (4.6%), all life-threatening hematomas detected w/in hrs after cervical (6 hrs) & lumbar (3 hrs) surgery

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TABLE 1. Summary on the safety of and outcomes for outpatient lumbar laminectomy and discectomy

Authors & Year	Study Information	Type of Surgery	Observations/Conclusions	Outcomes
Emami et al., 2016	Single institution, study dates Jan–Dec 2012, 32 outpatients, 64 inpatients	1- or 2-level MI TLIFs	Outpatients significantly younger, had lower ASA physical status scores & lower CCIs than inpatients; no statistical difference in overall postop complication rate, readmission rate, final ODI or VAS scores	Outpatients: neurological (allograft malposition or persistent nerve root compression) 2, postop hematoma 0, incidental durotomy 0, SSI 0, instrumentation (pedicle screw malposition, hardware prominence, rod disengagement) 1; inpatients: neurological (allograft malposition or persistent nerve root compression) 3, postop hematoma 2, incidental durotomy 1, SSI 3, instrumentation (pedicle screw malposition, hardware prominence, rod disengagement) 1
Chin et al., 2016	Multiple institutions, 30 outpatients, 40 inpatients	Single-level LLIF w/ supplemental pst fixation at each lumbar level from L-1 to L-5; LLIF performed at ASC or as inpatient procedure	LLIF as outpatient procedure has significant improvement in ODI scores compared to scores for inpatient procedure ($p = 0.013$); outpatient LLIF improves patient outcome w/ similar safety as inpatient procedure	Complication rate for inpatient > that for ASC; ASC dermatome numbness: 2 (7%); inpatient dermatome numbness: 4 (10%); weakness: 3 (7.5%); inability to walk: 1 (2.5%)
Chin et al., 2017[13]	Single surgeon, ASC, study dates 2008–2014, 557 ASC, 210 inpatients	Inpatient: decompression 71, fusion 138; outpatient: decompression 150, fusion/disc replacement 197	Majority of spine surgery can be done as outpatient procedure after meeting certain eligibility criteria	Overall revision surgery 14%, overall complication rate 5%
Idowu et al., 2017	Truven Health Marketscan Research Databases, study dates 2003–2014, inpatient hospital, outpatient hospital, ASC	Lumbar fusion, lumbar decompression, ant cervical fusion, pst cervical decompression, pst cervical fusion	True ambulatory surgeries (defined as at ASC) not increasing at same rate as outpatient procedures	
Yen & Albargi, 2017	Single institution, 2 18-mo periods, pre- & postimplementation of ambulatory outpatient protocol	Lumbar laminectomy	1 readmission in inpatient cohort, outpatient & overnight laminectomy safe, out of town patients also safe	No patients required postop admission to hospital or readmission in 30 days; inpatient readmission: 1

ant = anterior; ASA = American Society of Anesthesiologists; ASC = ambulatory surgery center; CABG = coronary artery bypass grafting; CCI = Charlson Comorbidity Index; CHF = congestive heart failure; COPD = chronic obstructive pulmonary disease; DM = diabetes mellitus; ED = emergency department; LLIF = lateral lumbar interbody fusion; MI = minimally invasive; NSQIP = National Surgical Quality Improvement Program; ODI = Oswestry Disability Index; pst = posterior; SSI = surgical site infection; TLIF = transforaminal lumbar interbody fusion; VAS = visual analog scale.

day discharge.[38,40,42,43] There were no reported deaths, and overall complication rates ranged from 0% to 2%. In these reports, only 1 patient required conversion to inpatient status for neck swelling and this patient did not require reoperation. The initial studies provided proof of concept but were limited by a lack of statistical power to show a difference between inpatient and outpatient ACDF. More recently, there have been several larger clinical series and database studies reporting direct comparisons of inpatient and outpatient ACDF. McGirt et al. obtained 1442 ACDF cases (650 inpatients, 792 outpatients) from the American College of Surgeons database, and after propensity matching for 32 covariates such as number of levels, medical comorbidities, age, and sex, these authors found that outpatient ACDF had 58% reduced odds of a major morbidity and 80% lower odds of reoperation within 30 days (ORs 0.42 and 0.20, respectively).[29] The same author group analyzed 1000 consecutive ACDF patients, all of whom had been observed for at least 4 hours prior to discharge.[1] Notably, all of the patients had American Society of Anesthesiologists physical status class I or II, all underwent 1- or 2-level ACDF, and all cases began before noon. Overall, 8 patients (0.08%) were transferred to inpatient status. There were no significant differences between the inpatient and outpatient cohort in the 30- and 90-day readmission or reoperation rate. Several other surgical database studies have since corroborated these findings in support of outpatient 1- or 2-level ACDF with an overall low comorbidity profile.[17,24,35] Additionally, Ban and colleagues performed a meta-analysis and systematic review,

TABLE 2. Summary on the safety of and outcomes for outpatient lumbar fusion

Authors & Year	Study Information	Type of Surgery	Observations/Conclusions	Outcomes
Walid et al., 2010	Reviewed patients who went through common process of surgery venue selection: 97 outpatients, 578 inpatients	ACDF (levels unspecified), lumbar microdiscectomy, lumbar decompression w/ or w/o fusion	Mean age older in inpatients ($p < 0.001$); prevalence of DM, CHF, heart disease, CABG/stent/balloon angioplasty, knee problems, & depression higher in inpatients ($p < 0.05$); prevalence of COPD & history of stroke higher in outpatient cervical surgery cohort ($p < 0.05$)	Outpatients: any complication 1 (1.0%), postop infection 1 (1.0%); inpatients: any complication 16 (2.8%), postop infection 16 (2.8%); all patients w/ complications obese
Best et al., 2015	National Survey of Ambulatory Surgery	Discectomy, laminectomy, fusion	Ambulatory surgeries for intervertebral disc disorders & spinal stenosis increased btwn 1994 & 2006	
Chin et al., 2017[12]	ASC, single surgeon, 16 outpatients	1-level PLIF or TLIF (direct open, single-level PLIF)	Direct open PLIF done safely w/ significant reduction in average pain & ODI scores	Worsened back pain & possible aseptic discitis: 1 (6.3%)
Chin et al., 2016	Multiple institutions, 30 outpatients, 40 inpatients	Single-level LLIF w/ supplemental pst fixation at each lumbar level from L-1 to L-5; LLIF performed at ASC or as inpatient procedure	LLIF as outpatient procedure has significant improvement in ODI scores compared to scores for inpatient procedure ($p = 0.013$); outpatient LLIF improves patient outcome w/ similar safety as inpatient procedure	Complication rate for inpatients > that for outpatients; ASC dermatome numbness: 2 (7%); inpatient dermatome numbness: 4 (10%), weakness: 3 (7.5%), inability to walk: 1 (2.5%)
Emami et al., 2016	Single institution, study dates Jan–Dec 2012, 32 outpatients, 64 inpatients	1- or 2-level MI TLIFs	Outpatients significantly younger, had lower ASA physical status scores & lower CCIs than inpatients; no statistical difference in overall postop complication rate, readmission rate, final ODI or VAS scores	Outpatients: neurological 2, postop hematoma 0, incidental durotomy 0, SSI 0, instrumentation (pedicle screw malposition, hardware prominence, rod disengagement) 1; inpatients: neurological 3, postop hematoma 2, incidental durotomy 1, SSI 3, instrumentation (pedicle screw malposition, hardware prominence, rod disengagement) 1
Smith et al., 2016	ASC, predictive arm: 873 d/c <24 hrs (outpatients), 160 d/c >23 hrs (inpatients); clinical study: 54 consecutive XLIF & 18 consecutive MI pst fusion	Lumbar fusion (1–4 levels), XLIF, MI pst fusion	Select patients can be treated as outpatients w/ XLIF & other MI surgical approaches; based on predictive study: younger age, higher preop hemoglobin, fewer levels, lower BMI, & less advanced disease may predict early d/c	Clinical study (72): no intraop or postop complications in either XLIF or MI pst fusion cohort; no transfers to inpatient facility
Idowu et al., 2017	Truven Health Marketscan Research Databases, study dates 2003–2014, inpatient hospital, outpatient hospital, ASC	Lumbar fusion, lumbar decompression, ant cervical fusion, pst cervical decompression, pst cervical fusion	True ambulatory surgery (defined as at ASC) not increasing at same rate as outpatient procedures	
Chin et al., 2017[12]	Prospective, single institution, 30 CBT pedicle screws OSC, 30 traditional pedicle screws inpatient	Pst lumbar fixation	Successful lumbar fusions in OSC using midline CBT pedicle screw; traditional method may still work as outpatient procedure, but authors claim midline technique is more advantageous; OSC led to significant improvement in VAS back pain ($p = 0.004$) and ODI ($p = 0.027$) scores; similar fusion rate at 2 yrs	
Chin et al., 2017[13]	Single surgeon, ASC, study dates 2008–2014, 557 ASC, 210 inpatients	Inpatient: decompression 71, fusion 138; outpatient: decompression 150, fusion/disc replacement 197	Majority of spine surgery can be done as outpatient procedure after meeting certain eligibility criteria	Overall revision surgery 14%, overall complication rate 5%

BMI = body mass index; d/c = discharge; LLIF or XLIF = lateral lumbar interbody fusion; CBT = cortical bone trajectory; OSC = outpatient surgery center; PLIF = posterior lumbar interbody fusion.

TABLE 3. Summary on the safety of and outcomes for outpatient anterior cervical spine surgeries

Authors & Year	Study Information	Type of Surgery	Observations/Conclusions	Outcomes
Silvers et al., 1996	Single institution, study dates May–Dec 1994, 50 prospectively analyzed outpatients, 53 retrospectively analyzed inpatient controls	1- to 2-level ACDF	No statistically significant difference btwn inpatient & outpatient groups on any parameters; ambulatory surgery does not compromise safety or efficacy of ACDF	Mortality: 0%, complication rate for each group: 2%; outpatients: dysphagia (partially recovered) & vocal cord paralysis (not fully resolved at >1 yr): 1 (2%); inpatients: superficial wound infection: 1 (1.9%)
Trahan et al., 2011	One physician's practice, study dates Nov 2005–Apr 2009, 59 outpatients, 58 inpatients	1- to 2-level ACDF: 1-level 68, 2-level 49	1- to 2-level ACDF can be done on an outpatient basis; complication rates low, critical postop complications including respiratory compromise occur very infrequently & in the immediate postop period	Outpatients: any complication 1 (1.4%), neck swelling & difficulty breathing & anxiety requiring readmission 1 (1.4%)
Stieber et al., 2005	Two senior authors, freestanding ASC, study dates 1998–2002, 30 ASC, 60 inpatients	1- to 2-level ACDF+P at C4–5 or below as adjunct to autogenous iliac crest bone graft or structural allograft: 1-level: 40, 2-level: 50	Outpatient group had lower complication rate than controls (likely due to selection bias); transient dysphagia most common complication in outpatients	ASC: any complication 3 (10%), dysphagia 3 (10%), readmission 0 (0%); inpatients: any complication 7 (13%), transient dysphagia 3 (5%), graft donor site pain 4 (14%), increased LOS due to complication 4 (7%), readmitted for early complication 4 (7%)
Lied et al., 2008	Single institution, 390 outpatients	ACDF: 278 fused w/ autologous iliac crest, 112 fused w/ PEEK graft	6-hr postop observation, then discharge is safe	Mortality: 0 (0%); any complication: 37 (9%), immediate complication (0–6 hrs): 17, early complication (6–72 hrs): 1, late complication (>72 hrs): 19; all life-threatening neck hematomas detected w/in first 6 hrs
Villavicencio et al., 2007	Single institution, study dates Apr 2003–Apr 2005, 103 outpatients, d/c <15 hrs postop: 99 (96.1%), d/c after 23 hrs observation after 3-level ACDF: 4 (3.9%)	1- to 3-level ACDF	ACDF w/ instrumentation as outpatient is safe & feasible & not associated w/ increased complications	Overall complication rate: 4 (3.8%), major complications (vertebral fracture & dehydration resulting in readmission): 2 (1.9%), minor complications (allergic reaction to medications that did not require hospitalization, transient [≤3 mos] neurological deficit): 2 (1.9%)
Garringer & Sasso, 2010	Single surgeon, prospective, study dates Nov 1993–May 2006, 645 outpatients	1-level ACDF	1-level ACDF safe in outpatient setting w/ 4-hr observation; using postop drain is questionable	Mortality: 0 (0%), any complication: 2 (0.3%), both epidural hematomas, both occurred w/in 4-hr observation period, both resolved w/o permanent deficit; unplanned admission: 24 (6%), >80% due to pain or nausea
Sheperd & Young, 2012	ASC dedicated to spine surgery, study dates 2007–2009, 152 ASC	1- to 2-level ACDF	75 patients completed self-reported survey w/in 6 mos, reporting 100% satisfaction rate; ACDF safe in selected patients as outpatient procedure w/ high patient satisfaction	ED visit 6 (3.9%): neck pain 2 (1.3%), dysphagia 1 (0.7%), vocal cord paralysis & dysphagia 1 (0.7%), nausea 1 (0.7%), cervical swelling 1 (0.7%); required readmission: 1 (0.7%); long-term sequelae: 0 (0%); complication rate: 3.9%
Wohns, 2010	Single institution, study dates Feb 2009–May 2010, 14 ASC, 12 hospital-based outpatients	Cervical disc arthroplasty	100% patients reported improvement; outpatient cervical disc arthroplasty costs: 62% < 1-level outpatient ACDF, 84% < 1-level inpatient cervical disc arthroplasty; outpatient: 1-level cervical disc arthroplasty: $11,144.83, 1-level ACDF: $29,313.43; inpatient: 1-level cervical disc arthroplasty: $68,000, 1-level ACDF: $61,095.49	No mortality, complications, cases requiring hospital transfer, postop ED visit

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TABLE 3. Summary on the safety of and outcomes for outpatient anterior cervical spine surgeries

Authors & Year	Study Information	Type of Surgery	Observations/Conclusions	Outcomes
Walid et al., 2010	Reviewed patients who went through common process of surgery venue selection, 97 outpatients, 578 inpatients	ACDF (levels unspecified), lumbar microdiscectomy, lumbar decompression w/ or w/o fusion	Mean age older in inpatients ($p < 0.001$); prevalence of DM, CHF, heart disease, CABG/stent/balloon angioplasty, knee problems, & depression higher in inpatients ($p < 0.05$); prevalence of COPD & history of stroke higher in outpatient cervical surgery cohort ($p < 0.05$)	Outpatients: any complication 1 (1.0%), postop infection 1 (1.0%); inpatients: any complication 16 (2.8%), postop infection 16 (2.8%); all patients w/ complications obese
Lied et al., 2013	Single institution, 96 outpatients	1- or 2-level ACDF: 1-level: 60, 2-level: 36	91% patient satisfaction using NASSQ; ACDF in select patients w/ cervical disc degeneration appears safe as outpatient procedure w/ sufficient postop observation; clinical outcomes & patient satisfaction comparable w/ those for inpatient procedure	Mortality: 0%; surgical morbidity: 5.2%, hematoma 2 (2.1%), dysphagia 2 (2.1%), neurological deterioration 1 (1%)
Baird et al., 2014	US HCUP SID & SASD for CA, NY, FL, & MD; study dates 2005–2009	Cervical spine surgery in outpatient setting	Increase in cervical spine surgeries in ambulatory setting during study period: ACDF 68%, pst decompression 21%; majority (>99%) d/c home after ambulatory surgery	
Martin et al., 2008	NSQIP, 597 outpatients, 2317 inpatients	1-level ACDF	Age >65 yrs, ASA score III or IV, current dialysis, current steroid use, recent sepsis, & op times >120 mins all independent risk factors for complications; no significant differences in complication rate btwn groups; reasonable to consider inpatient 1-level ACDF in patients w/ aforementioned risk factors	Mortality: 5 (0.2%), any complication: 92 (3.2%), reoperation: 34 (1.2%); outpatients: mortality 1 (0.2%), any complication (1.3%), reoperation (0.2%); inpatients: mortality 4 (0.2%), any complication (3.6%), reoperation (1.4%)
Best et al., 2015	National Survey of Ambulatory Surgery	Discectomy, laminectomy, fusion	Ambulatory surgeries for intervertebral disc disorders & spinal stenosis increased btwn 1994 & 2006	
Helseth et al., 2015	Private clinic, single institution, prospectively recorded complications, study dates 2008–2013, 1449 outpatients	Microsurgical decompression: lumbar 1073, cervical 376	In favor of outpatient spinal surgery for properly selected patients	Surgical mortality: 0 (0%), any complication: 51 (3.5%), same-day admission: 3 (0.2%), admission w/in 3 mos: 22 (1.5%), hematoma: 9 (0.6%), neurological deterioration: 4 (0.3%), deep wound infection 13 (0.9%), dural lesion & CSF leakage: 15 (1.0%), persistent dysphagia: 2 (0.1%), persistent hoarseness: 2 (0.1%), severe pain/headache: 6 (0.4%), reoperation: 67 (4.6%); all life-threatening hematomas detected w/in hrs after cervical (6 hrs) & lumbar (3 hrs) surgery
McGirt et al., 2015	NSQIP, study dates 2005–2011, 1168 outpatients, 6120 inpatients	1- to 2-level ACDF	Return to OR w/in 30 days & major morbidity lower in outpatients	Outpatients: major morbidity 0.94%, return to OR w/in 30 days 1.4%; inpatients: major morbidity 4.5%, return to OR w/in 30 days 2%
Adamson et al., 2016	Single institution, ASC, study dates 2006–2013, 1000 ASC, 484 inpatients	1-, 2-, >2-level ACDF; ASC: 1-level 629, 2-level 365, >2-level 6; inpatient: 1-level 274, 2-level 210	Surgical complications low & can be diagnosed in 4-hr ASC PACU window; similar results compared to those for inpatient ACDF; can perform ACDF safely as outpatient ASC procedure; 90-day morbidity similar btwn cohorts for 1- & 2-level ACDF	Transfer from ASC to inpatient: 8 (0.8%), pain control: 3, chest pain & EEG changes: 2, intraop CSF leak: 1, postop hematoma: 1, profound postop weakness & surgical re-exploration: 1; mortality: 0%; 30-day hospital readmission: 2.2%

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Attachment 12

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TABLE 3. Summary on the safety of and outcomes for outpatient anterior cervical spine surgeries

Authors & Year	Study Information	Type of Surgery	Observations/Conclusions	Outcomes
Arshi et al., 2017	Humana-insured patients, study dates 2011–2016, 1215 outpatients, 10,964 inpatient	1- to 2-level ACDF	Adjusting for age, sex, & comorbidities: outpatients more likely to undergo revision surgery for pst fusion at 6 mos & 1 yr, ant fusion at 1 yr; outpatient more likely to have postop acute renal failure	Outpatients: acute renal failure 15 (1.23%), respiratory failure 16 (1.32%), CVA 12 (0.99%); inpatients: acute renal failure 164 (1.50%), respiratory failure 313 (2.85%), CVA 132 (1.20)
Chin et al., 2017[14]	Single center, ASC	TDR: 55; 1-level ACDF: 55	1-level TDR safe in ASC w/ satisfactory clinical & patient-reported outcomes; comparable w/ ACDF in outpatient setting	Dysphagia most common postop complaint in both groups (6 total), no intergroup significant differences
Chin et al., 2017[13]	Single surgeon, ASC, study dates 2008–2014, 557 ASC, 210 inpatients	Inpatient: decompression 71, fusion 138; outpatient: decompression 150, fusion/disc replacement 197	Majority of spine surgery can be done as outpatient procedure after meeting certain eligibility criteria	Overall revision surgery 14%, overall complication rate 5%
Idowu et al., 2017	Truven Health Marketscan Research Databases, study dates 2003–2014, inpatient hospital, outpatient hospital, ASC	Lumbar fusion, lumbar decompression, ant cervical fusion, pst cervical decompression, pst cervical fusion	True ambulatory surgery (defined as at ASC) not increasing at same rate as outpatient procedures	
Fu et al., 2017	NSQIP database, study dates 2011–2014, 4759 outpatients, 17,211 inpatients	1- to 2-level ACDF: 2-level 6890 (20.7% outpatient)	Greater comorbidity burden (CCI), higher ASA class, chronic steroid use, HTN, & male sex independent risk factors for post-d/c complications; outpatient 2-level ACDF not associated w/ increased postop morbidity relative to inpatient procedure	2-level ACDF complications: 1.47% outpatient, 3.94% inpatient ($p<0.001$)
Khanna et al., 2018	NSQIP, study dates 2011–2013, 1778 (25.6%) outpatients, 5162 (74.4%) inpatients	1-level ACDF 6940	Complication rate higher in inpatient group ($p=0.003$); outpatient surgery for 1-level ACDF safe & favorable for select patients	Overall complication rate: 4.2%; outpatient: complication rate 1.2%, 30-day readmission 1.8%, mortality 0.1%; inpatient: complication rate 2.5%, 30-day readmission 2.2%, mortality 0.1%
Purger et al., 2017	CA, FL, NY SID & SASD, 3135 ambulatory, 46,966 inpatients	ACDF	Ambulatory younger (48.0 vs 53.1 yrs), more likely white; higher CCI, increased rate of ED visits, & readmission in both groups; overall charges lower for ambulatory $33,362.51 vs inpatient $74,667.04	Ambulatory: mortality 0%, ED w/in 30 days 168 (5.4%), readmitted 51 (1.6%), reoperation 200 (0.4%); infection, hematoma, disruption of surgical site or complication from implant: 20, neck pain or injury, radiculopathy, DD: 52, laryngeal/airway: 0, dysphagia/esophageal: 7, other: 172; inpatient: infection, hematoma, disruption of surgical site or complication from implant: 397, neck pain or injury, radiculopathy, DD: 630, laryngeal/airway: 7, dysphagia/esophageal: 118, other: 3792

ACDF+P = ACDF with plating; CVA = cerebrovascular accident; DD = degenerative disease; EEG = electroencephalography; HCUP = United States Healthcare and Cost Utilization Project; HTN = hypertension; LOS = length of stay; NASSQ = North American Spine Society Questionnaire; OR = operating room; PACU = post-anesthesia care unit; PEEK = polyetheretherketone; SID = State Inpatient Databases; SASD = State Ambulatory Surgery and Services Databases; TDR = total disc replacement.

including 12 articles and 1693 treated levels, which revealed an overall complication rate of 1.71% and a risk ratio of 0.99, suggesting no statistical difference between inpatient and outpatient groups.[6]

There may be a longer-term negative effect of outpatient ACDF. Arshi et al. examined more than 12,000 patients in a private insurance database and reported that outpatient ACDF was associated with higher odds of repeat anterior surgery at 1 year (OR 1.46) as well as a higher likelihood of undergoing posterior surgery at 6 months and 1 year (ORs 1.58 and 1.79, respectively).[3] The authors speculate that pressures for high throughput in an ambulatory setting may force surgeons to be less rigorous in endplate preparation, discectomy, or proper instrumentation, leading to higher rates of pseudarthrosis. Another interesting theory posits that the bias against the treatment of more than 2 levels may increase the proportion of patients with untreated milder adjacent segment disease, which subsequently progresses. Their findings underline the importance of studying longer-term outcomes beyond 30 or 90 days to truly evaluate whether outpatient spine surgery has an unanticipated impact.

Cervical Disc Arthroplasty

Cervical disc arthroplasty is a logical companion to outpatient ACDF and may actually lend itself to superior outcomes as patients in these cases are often younger with fewer baseline comorbidities. Moreover, the surgical principles favor less bony and soft tissue disruption. For now, the data on outpatient surgery are limited. Wohns reported on a personal series of 26 consecutive cervical disc arthroplasties with a minimum 4-hour observation period in a cohort of patients with a mean age of 46 years and no comorbidities.[46] There were no transfers to inpatient status, nor any readmissions or reoperations within 30 days. Another group compared 55 outpatient disc arthroplasty cases to an outpatient ACDF control group (55 patients) and again found no readmissions or reoperations within 30 days.[14]

Cost

As described earlier, the difference between outpatient surgery performed at a hospital and that performed at an ambulatory center confounds direct comparison of the cost savings. However, in single-center studies, several authors have reported their own cost savings. For example, performing lumbar laminectomy in an ambulatory surgery center can produce a 30% facility fee reduction.[29] Similarly, Silvers et al. reported a cost savings of $1800 per ACDF performed in 1996 and estimated a cost savings of $140 million nationwide for that same year if every 1- or 2-level ACDF were performed in the outpatient setting.[38] Wohns found the cost of a single-level outpatient cervical disc arthroplasty to be 62% less than an outpatient ACDF and 84% less than an inpatient cervical disc arthroplasty.[46] This suggests that cost is a complex result of procedure, instrumentation, facility fee, and length of stay.[30] Purger et al. modeled costs and charges including all complications, readmissions, and reoperations within 90 days as a bundled charge and found significant savings in the outpatient ACDF cohort—nearly half the total for inpatient ACDF.[35] The 90-day bundled charge represents one of the proposed Medicare value-based reimbursement paradigms and is an ideal metric for future cost studies.

Patient Selection and Discharge Criteria

If the outcomes of ambulatory spine surgery are deemed acceptable, the next critical step will be to create protocols and standardize patient selection and postoperative care. As seen in the previously described outcome studies, there is an inherent selection bias toward younger and healthier patients undergoing outpatient spine surgery.[44] Age alone has been shown to be an independent risk factor for 30-day complications after ACDF.[9] Chin et al. analyzed the overall eligibility of patients meeting predetermined outpatient criteria in their practice, including a body mass index less than 42, a low to moderate surgical risk, and the absence of medical comorbidities.[13] Interestingly, they did not include patient age but added local caregiver and close to the hospital in their protocol. Overall, in their private practice group, 79% of patients met these criteria. Along the same lines, multiple groups have discussed the need for discharge criteria. Outpatient ACDF carries the feared complication of delayed neck hematoma, and there may be an optimal postoperative observation period to prevent any delayed complications. Lied et al. studied the timing in detecting a postoperative complication after ACDF.[27] Thirty-seven patients (9%) among 390 consecutive surgeries experienced any surgical complication. When stratified by the timing of presentation—immediate (within 6 hours), early (6–72 hours), and late (greater than 72 hours)—all 5 patients (1.2%) who developed a neck hematoma had been diagnosed and undergone evacuation within 6 hours.

Similarly, several groups have created protocols and discharge criteria for outpatient surgery.[15,18,25,31] This includes the empowerment of anesthesia colleagues and nursing staff to improve efficiency and implement safety checkpoints.[41] Furthermore, the utilization of a next-day clinic visit or follow-up telephone call can maintain patient satisfaction as well as preserve safety and outcomes.[20,26,37]

Surgeon Preference

One additional consideration highlights the role of surgeon preference. In the United States medicolegal environment, the impact of a single death cannot be understated from the perspective of cost as well as surgeon willingness to send a patient home early.[45] For ACDF and cervical disc arthroplasty specifically, this may prevent the adoption of outpatient surgery at large regardless of the outcomes.

Conclusions

As the economic burden of United States health care continues to increase, we are obligated to produce novel solutions to rising costs. Here, we present evidence describing ambulatory spine surgery outcomes with related proposed cost savings. With proper patient selection and close follow-up, outpatient surgery may be an ideal model for innovation and significant cost reduction.

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Disclosures

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Author Contributions

Conception and design: Pendharkar, Ho, Sussman, Purger, Veeravagu, Ratliff, Desai. Acquisition of data: Pendharkar, Shahin, Ho, Sussman, Purger, Veeravagu, Desai. Analysis and interpretation of data: all authors. Drafting the article: Pendharkar, Shahin, Ho, Sussman, Purger, Veeravagu, Desai. Critically revising the article: all authors. Reviewed submitted version of manuscript: all authors. Approved the final version of the manuscript on behalf of all authors: Pendharkar. Administrative/technical/material support: Pendharkar, Shahin, Ho.

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TRENDS AND COSTS OF ANTERIOR CERVICAL DISCECTOMY AND FUSION: A COMPARISON OF INPATIENT AND OUTPATIENT PROCEDURES

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ABSTRACT

Study Design: Epidemiologic Study.

Objectives: To identify the trends in utilization of outpatient discharge for single level anterior cervical discectomy and fusion (ACDF), between 2007 and 2014, and to compare the costs and incidence of complications against a cohort of inpatients.

Methods: We retrospectively reviewed 18,386 patients from the PearlDiver database from between 2007 and 2014. Discharge status was determined from billing codes. The total cost of all procedures and diagnostic tests, was determined for the global period from the time of diagnosis up until 90-days post-operatively, and the incidence of complications was recorded for 30-days.

Results: The proportion of outpatient discharges was stable around 20% from 2007 to 2014 (range17-23%). The mean 90-day cost was lower for outpatients ($39,528 v. $47,330) but reimbursement fell nearly 1/3 from 2007-2014 for both groups, and the difference between the two narrowed over time ($13,745 difference in 2008, to $3,834 in 2014). Outpatients had a lower incidence of overall 30-day complications (9.5% v. 18.6%, p<0.0001), but were also significantly less comorbid (mean Charlson comorbidity index 2.32 v. 3.85, p<0.001). Older patient age, obesity, cardiac, renal, and pulmonary comorbidity were each more common in the inpatients (p<0.05 for each).

Conclusions: Outpatient discharge after ACDF is a viable treatment option with a reasonable safety profile and decreased costs relative to inpatient admission. Appropriate patient selection is key, and the standard of care nationally for the comorbid patient remains inpatient admission. The economic trends and epidemiologic data presented here should be useful for health policy decisions.

INTRODUCTION

Anterior cervical discectomy and fusion (ACDF) is amongst the most common procedures performed in the cervical spine.[1] The procedure is generally successful, and the incidence of major morbidity is low.[2] Historically, patients were admitted for a 2-4 day inpatient hospital stay post-operatively, the principal advantage of which is close monitoring of the patient's neurologic and respiratory status.[3] However, inpatient admissions add to the cost of the procedure,[4] and it is not clear that observation in the hospital actually reduces the incidence of major complications.[2,4] Indeed, some authors have argued that inpatient admission actually increases the risk of nosocomial complications, without increasing the overall safety.[4-9] Furthermore, emergent complications are most likely to occur after multi-level procedures, or after procedures involving the upper cervical spine.[3] Thus, some authors have argued that single level procedures, or procedures in the sub-axial spine are safe enough to be performed on an outpatient basis.[7]

The bulk of this literature was published after 2010, with few papers appearing before 2007.[4] Thus, the evidence basis for outpatient treatment after ACDF is relatively new, and it is not clear what impact it has had on national practice patterns. Furthermore, several

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Conflict of Interest Statement:
Each author certifies that he or she has no commercial associations (eg, consultancies, stock ownership, equity interest, patent/licensing arrangements, etc) that might pose a conflict of interest in connection with the submitted article.

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Table I: ACDF Case Volumes By Discharge Status

Year	Inpatient	Outpatient	Total ACDF Patients	Cases Per 10,000 Population	% of Total That were Outpatients
2007	1034	282	1316	2.02	21
2008	1197	356	1553	2.39	23
2009	1394	382	1776	3.22	22
2010	1715	391	2106	3.70	19
2011	1858	403	2261	3.53	18
2012	2095	432	2527	3.59	17
2013	2552	605	3157	4.05	19
2014	2995	833	3828	3.97	22
Totals	14721	3665	18386	n/a	20

Table II: Comparison of Comorbidities Between Inpatients and Outpatients

Comorbidities	Outpatient (%) n=3665	Inpatient (%) n=14721	P Value
Age <40 yrs	9	4	<0.0001
Age 40-65 yrs	67	52	
Age > 65 yrs	24	43	
Female	51	53	0.0733
Male	49	47	
Obesity	17	21	<0.0001
Morbid Obesity	6	9	<0.0001
Smoke	38	40	0.0141
Diabetes	24	34	<0.0001
Apnea	11	14	<0.0001
Hyperlipidemia	56	68	<0.0001
Hypertension	59	73	<0.0001
PVD	3	5	<0.0001
Heart Failure	5	9	<0.0001
Artery Disease	16	24	<0.0001
Kidney Disease	5	10	<0.0001
Dialysis	<0.3	<0.3	0.8327
COPD	6	12	<0.0001
Liver Disease	5	6	0.0068
Charlson Comorbidity Index (Mean, sd)	2.32 (4.03)	3.85 (2.0)	<0.001

of the prior studies demonstrating cost reduction with outpatient ACDF used hospital billing records as the basis for their data. Hospitals are often reimbursed far less than they bill, and thus these records may not accurately represent true cost savings for the procedure.[10]

Thus, the purpose of the current study was to define the epidemiology and reimbursement patterns for outpatient ACDF since 2007. We utilized the PearlDiver database, which includes insurance reimbursement information, rather than hospital billing data. A detailed cost analysis was performed and a univariate analysis was conducted in order to determine which patient factors were associated with outpatient treatment.

METHODS

Patient Selection

We retrospectively reviewed patient records from 2007-2014 from the PearlDiver patient record database (PearlDiver Technologies, Inc. Warsaw, IN, USA), which has the insurance billing code records of millions of orthopedic patients. Current Procedural Terminology (CPT) codes for single level ACDF (22554 or 22551) were used to identify the cohort, and we then used a combination of International Classification of Disease, 9th edition (ICD-9) codes and CPT codes to exclude patients who had undergone concomitant multilevel procedures involving the cervical or thoracic spine, patients undergoing a discectomy without fusion, or patients undergoing a revision surgery. A full listing of the included codes is provided in the Appendix (Appendix Table 1).

Comorbidities and Complications

Patient comorbidities and post-operative complications that occurred within 30-days of the procedure were identified using ICD-9 codes, and a complete listing of the included codes is provided in the Appendix (Appendix Table 2 and Table 3). 30-days was chosen as the cutoff because it is a common metric used by the Center for Medicare and Medicaid Services as a quality measure. Some patients had more than one complication, and thus the composite category of "any complication," has

Table III: Average Total 90 Day Reimbursements

Year	Inpatients	Outpatients	Difference
2007	$51,080	$43,664.81	$7,414.72
2008	$55,732	$41,986.75	$13,745.12
2009	$57,058	$44,027.86	$13,030.44
2010	$53,826	$45,698.02	$8,128.07
2011	$52,690	$43,937.62	$8,752.03
2012	$47,584	$42,876.49	$4,707.51
2013	$43,246	$35,320.58	$7,925.45
2014	$33,980	$30,146.03	$3,833.58
Totals	47330.17	$39,527.96	$7,802.21

*P-Values could not be calculated for this analysis due to limitations of the PearlDiver Database

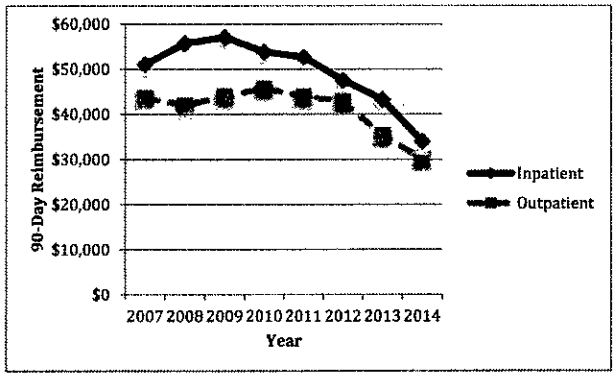

Figure 1: Trends in reimbursement from 2007 to 2014.

a lower total number than the sum of each of the individual categories. In addition, we determined the average Charlson comorbidity index of the cohort.

Costs

PearlDiver provides a total cost for the entire cohort and also an average cost per patient, starting from the time of their initial diagnosis in clinic, and continuing up to 90-days after their procedure. 90 days was chosen because it corresponds to the 90-day global fee period for reimbursement. The cost includes the reimbursement paid out by the insurance provider for all diagnostic tests, clinic visits, and procedures during the time period. The database will not provide standard deviation information for this analysis, and thus p-values cannot be provided.

Statistical Analysis

For the trends, comorbidities, and complications categories, patients were divided into cohorts of inpatients and outpatients, with discharge status determined by billing codes submitted to the payor. We then conducted a univariate analysis to compare the two cohorts, using a chi-squared test for categorical variables and a student's t-test for continuous variables. Statistical analysis was performed using SAS 9.3 (SAS Institute, Cary, NC).

Table IV: Average Reimbursement for Diagnostic Studies During the 90-Day Period

Year	Inpatients	Outpatients	Difference
2007	$27,739.50	$26,936.66	$802.84
2008	$28,849.77	$24,064.20	$4,785.58
2009	$28,314.46	$25,755.14	$2,559.32
2010	$27,781.31	$27,057.66	$723.65
2011	$25,917.10	$25,334.04	$583.06
2012	$25,285.11	$25,285.18	**-$0.07**
2013	$24,597.94	$23,643.59	$954.35
2014	$23,044.57	$22,840.61	$203.95
Totals	$25,843.61	$24853.78	$989.83

RESULTS

Trends

Between 2007 and 2014, the total number of ACDF performed on patients in the PearlDiver dataset increased from 1,316 annually up to 3,828 annually, which is a 191% increase (Table 1). However, enrollment in the PearlDiver dataset also increased during this time, and the per-capita utilization was a more modest 97% (Table 1). Of the total cohort, 20% were done on an outpatient basis, and the proportion of cases done on an outpatient basis was similar over time (Table 1).

Demographics and Comorbidities

On average, the inpatients were older (43% over age 65 years v. 24% of the inpatients, $p<0.001$), and were more comorbid overall, with a higher incidence of obesity (21% v. 17%, $p<0.001$), morbid obesity (9% v. 6%, $p<0.001$) diabetes (34% v. 24%, $p<0.001$), hyperlipidemia (68% v. 56%, $p<0.001$), hypertension (73% v. 59%, $p<0.001$), coronary artery disease (24% v. 16%, $p<0.001$), and chronic obstructive pulmonary disease (12% v. 6%, $p<0.001$). In addition, the average Charlson Comorbidity Index was significantly higher for the inpatients (mean 3.85 v. 2.32, $p<0.001$) (Table 2).

Reimbursement

The total reimbursement for the procedure, including all diagnostic tests and procedures performed from the time of the patient's diagnosis up until 90-days after their operation, on average was higher for inpatients, as compared to outpatients (Mean $39,528 for outpatients

Table V: Complications By Discharge Status

Complication	Outpatient (%) n=3665	Inpatient (%) n=14721	P-Value
Pulmonary Embolism	0.4	0.6	0.0783
DVT	0.4	0.9	0.0018
MI	<0.3	0.5	0.0115
Renal Failure	0.7	1.5	0.0001
UTI	1.8	4.1	<0.0001
Stroke	1.5	2.9	<0.0001
Wound Complication	1.2	2.2	<0.0001
Neurologic Deficit	<0.3	0.3	0.2862
Other Complication	1.3	1.7	0.0681
Any Complication	9.5	18.6	<0.0001

Some patients had more than one complication, and thus the total incidence of any complication is not the sum of the other categories.

v. $47,330 for inpatients) (Table 3). The average fell for both groups between 2007-2014. Specifically, for outpatients the average fell from $43,664 in 2007 to $30,146 in 2014, which is a 31% decrease. For inpatients, the average fell from $51,080 to $33,980, which is a 33% decrease (Figure 1). Furthermore, over time the difference between inpatient and outpatient reimbursement fell from a high of $13,745 in 2008, to $3,833 in 2014 (Table 3). PearlDiver provides a separate breakdown of reimbursement due to the ordering of diagnostic tests. The reimbursement for diagnostic tests was similar between both inpatient and outpatient groups, with an average of $25,844 for inpatients and $24,854 for outpatients (Table 4). However, this difference also decreased over time, from a high of $4,785.58 in 2008 down to $203.95 in 2014.

Complications

The incidence of complications within 30-days of surgery was significantly higher in the inpatient cohort, as compared to the outpatient cohort (18.6% v. 9.5%, p<0.001, Table 5). The most substantial increases were seen in the incidence of urinary tract infections (UTI) (4.1 v. 1.8%, p <0.001), renal failure (1.5 v. 0.7%, p<0.001), stroke (2.9 v. 1.5%, p=0.014), and wound complications (2.2 v. 1.2%, p<0.001) (Table 5).

DISCUSSION

The data presented here show relatively constant proportion of outpatient discharges for ACDF over time, with decreasing reimbursement for both inpatient and outpatient procedures. Complications were higher in the inpatients, but that cohort was also more comorbid at baseline. Several of these findings merit further discussion.

Trends

Somewhat to our surprise, and in spite of a majority of literature focusing on the issue recently,[2] outpatient discharges have not become more common since 2007, accounting for roughly 20% of the discharges in each year of our study. The first reports of outpatient ACDF appeared as early as 1996,[4] and it is possible that many surgeons had already adopted outpatient treatment into their practice prior to 2007. Furthermore, medical comorbidity was strongly associated with inpatient admission, indicating that surgeons are fairly selective in choosing which patients to treat as outpatients. The pool of patients for whom outpatient discharge is appropriate may be somewhat limited, thus limiting increased utilization.

Complications

Similar to the previously reported results from several studies, the unadjusted comparison of complications showed a higher incidence amongst the inpatient cohort.[4-9] In particular, the greatest magnitude of difference between the two cohorts was seen in the incidence of UTI (4.1 v. 1.8%, p<0.001), with each of the remaining categories being within 1-2% different. UTI is commonly a nosocomial complication associated with catheter insertion, and it seems reasonable that inpatients might have a longer exposure to indwelling catheters than do outpatients who are discharged more rapidly. Nonetheless, it is important to note that the limitations of the PearlDiver database precluded matching patients based on comorbidities, and thus the outpatient cohort was significantly less comorbid overall. Furthermore, a prior study in which patients were matched using propensity scores found no difference in complication incidence between inpatients and outpatients.[2] Thus, our results should be interpreted with caution, and do not imply that outpatient discharge is safer than inpatient admission. Rather, they likely reflect the fact that complications are more common in comorbid patients.

Factors Associated with Outpatient Discharge

It is clear that surgeons selectively choose their healthiest patients for outpatient discharge. In our univariate analysis, every recorded comorbidity was significantly more common in the inpatients. Ideally, this type of analysis would be done with a multivariate statistical comparison in order to determine which factors had the strongest independent association with outpatient discharge. However, the PearlDiver database limits access to individual patient data for privacy reasons, and thus only this composite comparison is available to us. A multivariate analysis of these factors would be

an interesting avenue for future study. Nonetheless, we feel these results help to define the standard practice nationally, and should provide some guidance to surgeons considering patients for outpatient discharge. We believe the standard of care for the multiply comorbid patient should remain inpatient admission.

Reimbursement

Inpatient surgery was more expensive, but this difference narrowed over time. The difference in reimbursement for diagnostic studies also decreased during this period, indicating that physicians may have become more conservative in their ordering of tests on post-operative patients. However, this decrease in diagnostic testing accounted for only 45.6% of the total decrease, indicating that a majority of the reduction came from the decreased cost of the hospitalization itself.

In 1996, Silvers et al multiplied the expected cost savings by an estimated annual number of inpatient procedures and argued that conversion of all ACDF patients to outpatient discharge would save the U.S. health system more than $100 million annually.[4] Data from the National Inpatient Sample estimates that roughly 125,000 ACDF were annually between 2007 and 2013.[11] Thus, using similar calculations, a conversion to all outpatient surgery would have saved U.S. health system over $1.6 billion in 2008 (the year of maximum difference between inpatients and outpatients in our study), but only $451.5 million in 2014. If the difference in costs between inpatient and outpatient procedures continues to narrow, the relative economic benefit may also continue to decrease.

The majority of prior economic studies in spine have concluded that national expenditure and costs per case are rising dramatically.[12-15] Somewhat in contrast to these studies, we found that average reimbursement per case has fallen from 2007 to 2014, both for inpatient (mean 33% decrease) and outpatient procedures (mean 31% decrease). There are two explanations for this discrepancy. First, the data from our study is relatively recent, spanning the time period from 2007 to 2014. During this recent time period, significant emphasis has been placed on cost containment, and many hospitals have engaged in cost reduction strategies specifically in spine. It is possible that these strategies have been at least partially successful, thus contributing to a reduction in costs. Secondly, prior studies on costs in spine have mostly utilized hospital charges,[10,12-15] which represent the bill sent to the insurance payor, but not the actual cost or the actual reimbursement received. Some hospitals are reimbursed a percentage of the bill they send out. One strategy to fight falling reimbursements might be to simply increase the hospital charge, and hospital bills may in fact be artificially elevated in response to the decreased reimbursement trend that we observed here.[10] Thus, studies that drew conclusions from hospital charge data might have been biased by an artificial billing practice, rather than from actual changes in the economics of the procedure.

Limitations

Our study does have several limitations. Notably, we calculated costs using reimbursement data, and included both pre-operative testing as well as fees from the 90-day global period post-op. Prior studies on reimbursement for ACDF have reported costs ranging from $10,879 to $24,923, with significant geographic variation,[10] and significant variation depending on whether hospital charges or insurance reimbursement was used to define costs.[16-18] However, the majority of these studies reported only the costs associated with the surgical admission, and thus the numbers in our study are understandably higher. Focusing solely on the initial surgical procedure might have excluded costs associated with the readmission of outpatients, or with additional procedures or tests done after discharge. Thus we felt that a comparison of reimbursements from the period both before and after the surgery would provide a more accurate assessment of cost differences between inpatients and outpatients. Nonetheless, a direct comparison of the costs from our paper to these other studies is not possible because of differences in methodology. Furthermore, our conclusions are based on insurance billing records, which may be subject to some level of coding error, and this limitation is present in any database study. Lastly, the PearlDiver dataset limits what information is available to researchers in order to protect patient privacy. Thus, some data points, such as the standard deviation of the cost information, and individual patient medical comorbidities, are not available to us. This limits the type and scope of the statistical analysis that can be performed. For example, we cannot definitively say that the difference in reimbursement between inpatients and outpatients is statistically significant. However, the trends in reimbursement are clear, and we believe that these paint an accurate picture for the reader.

CONCLUSIONS

Outpatient discharge after ACDF is a viable treatment option with a reasonable safety profile and decreased costs relative to inpatient admission. Appropriate patient selection is key, and the standard of care nationally for the comorbid patient remains inpatient admission. The economic trends and epidemiologic data presented here should be useful for making health policy decisions, and for future researchers in this area.

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Appendix Table I: Inclusion and Exclusion Criteria

Codes to Include	Codes to Exclude
ICD9 Diagnosis of 710-739 (includes musculoskeletal conditions and arthropathy of the spine), 341 (demyelinating diseases), 342 (hemiplegia or hemiparesis), 344 (other paralysis). and 22554: Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); cervical below C2. or 22551: *Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophytectomy and decompression of spinal cord and/or nerve roots; cervical below C2*	ICD9 Codes Below 710, or above 739, except those listed to the left. 22533 or 22532 – Thoracic or lumbar interbody arthrodesis from an anterior approach. 22856 – Cervical total disc arthroplasty. 22633 – Posterior lumbar fusion 22318 or 22319 – Open treatment of odontoid fracture. 22220, 22224, 22226 – osteotomies. 22548 – Anterior C1-2 arthrodesis. 22590 – Occiput –C2 arthrodesis. 22595 – Posterior C1-2 fusion 22600 – Posterior cervical arthrodesis. 22612 – Posterior lumbar fusion 22630 – Posteiror Lumbar interbody fusion 62287 – Needle based discectomy, any level. 63001-63047– Laminectomy codes 63081 – Cervical corpectomy. 63082 – Cervical corpectomy, each additional level. 63075 and 63076 – Cervical discectomy codes. Exclude these if they appear alone, without an associated code for fusion 63050 – Cervical Laminoplasty 63051 – Laminoplasty with reconstruction of bony elements 63081 – Partial cervical corpectomy 63101-63103 – Vertebrectomy in thoracic or lumbar spine. 63300-63308 – Excision of spinal neoplasm codes. 22855 – Removal of anterior instrumentation 22830 – Exploration of a fusion 22849 – Reinsertion of a spinal fixation device 22840-22844 – Posterior segmental instrumentation 22610-22614 – Posterior thoracic fusions.

Appendix Table II: Complications by ICD-9 Code

Dysphagia, vocal cord paralysis	
478.30-34	Paralysis of vocal cords or larynx
784.4	Voice and resonance disorder
787.2	Dysphagia
Nerve system complications	
997.0	Nervous system complication
997.00	Nervous system complication, unspecified
997.01	Central nervous system complication
997.09	Other nervous system complication
Wound complication	
998.1	Hemorrhage or hematoma or seroma complicating a procedure
998.11	Hemorrhage complicating a procedure
998.12	Hematoma
998.13	Seroma
998.3	Disruption
998.31	Disruption of internal surgical wound
998.32	Disruption of external operation wound
998.5	Postoperative infection
998.51	Infected postoperative seroma
998.59	Other postoperative infection
998.83	Non-healing surgical wound
999.3	Other infection
DVT	
453.40	Acute venous thrombosis or venous thromboembolism of the lower extremities.
453.41	Acute DVT of proximal lower extremity
453.42	Acute DVT of the distal lower extremity.
453.82	Acute DVT of upper extremity
Pulmonary Embolism	
415.11	Iatrogenic Pulmonary Embolism
415.13	Saddle Embolus of the pulmonary artery
415.1	Pulmonary Embolism and Infarction
415.19	Other pulmonary embolism
Acute Myocardial Infarction	
410.00	Acute MI of anterolateral wall
410.01	Acute MI of anterolateral wall
410.10	Acute MI of other anterior wall
410.11	Acute MI of other anterior wall
410.20	Acute MI of inferolateral wall
410.21	Acute MI of inferolateral wall
410.30	Acute MI of inferoposterior wall
410.31	Acute MI of inferoposterior wall
410.40	Acute MI of inferior wall
410.41	Acute MI of inferior wall
410.50	Acute MI of lateral wall
410.51	Acute MI of lateral wall
410.60	Posterior Wall Infarction
410.61	Posterior Wall Infarction
410.70	Subdendocardial Infarction
410.71	Subendocardial Infarction
410.80	Acute MI of other wall site
410.81	Acute MI of other wall site
410.90	Acute MI of unspecified site
410.91	Acute MI of unspecified site

Appendix Table II: Complications by ICD-9 Code

Respiratory Failure	
518.0	Pulmonary Collapse
518.51	Acute respiratory failure following surgery
518.52	Other respiratory failure
518.81	Acute pulmonary insufficiency
518.82	Other pulmonary insufficiency
Urinary Tract Infection	
996.64	Infection due to indwelling urinary catheter
599.0	Urinary tract infection
Acute Renal Failure	
584.5	Acute kidney failure due to ATN
584.6	Acute kidney failure due to renal cortical necrosis
584.7	Acute kidney failure due to renal medullary necrosis
585.8	Acute kidney failure of other lesion
584.9	Acute kidney failure, unspecified
Stroke	
430-436	Intracranial hemorrhage or CVA
Other Medical Complications Medical	
997.1	Cardiac complication
997.2	Peripheral vascular complication
997.3	Respiratory complication
998.0	Postoperative shock
998.8	Other specified complication of procedure, not elsewhere classified
998.89	Other specified complication
998.9	Unspecified complication of procedure, not elsewhere classified
999.9	Other and unspecified complication of medical care, not elsewhere classified

Appendix Table III: Comorbidities by ICD9 Code

Obesity	ICD-9-D-27800,ICD-9-D-V853,ICD-9-D-V8530:ICD-9-D-V8539
Morbid Obesity	ICD-9-D-27801,ICD-9-D-V854,ICD-9-D-V8541:ICD-9-D-V8545
Smoking History	ICD-9-D-3051,ICD-9-D-V1582
Diabetes Mellitus	ICD-9-D-24900,ICD-9-D-24901,ICD-9-D-24920,ICD-9-D-24921,ICD-9-D-24930,ICD-9-D-24931,ICD-9-D-24940,ICD-9-D-24941,ICD-9-D-24950,ICD-9-D-24951,ICD-9-D-24960,ICD-9-D-24961,ICD-9-D-24970,ICD-9-D-24971,ICD-9-D-24980,ICD-9-D-24981,ICD-9-D-24990,ICD-9-D-24991,ICD-9-D-25000:ICD-9-D-25003,ICD-9-D-25010:ICD-9-D-25013,ICD-9-D-25020:ICD-9-D-25023,ICD-9-D-25030:ICD-9-D-25033,ICD-9-D-25040:ICD-9-D-25043,ICD-9-D-25050:ICD-9-D-25053,ICD-9-D-25060:ICD-9-D-25063,ICD-9-D-25070:ICD-9-D-25073,ICD-9-D-25080:ICD-9-D-25083,ICD-9-D-25090:ICD-9-D-25093
Obstructive Sleep Apnea	ICD-9-D-32723
Hyperlipidemia	ICD-9-D-2720:ICD-9-D-2724
Hypertension	ICD-9-D-4010,ICD-9-D-4011,ICD-9-D-4019
Peripheral Vascular Disease	ICD-9-D-44020:ICD-9-D-44024,ICD-9-D-44029:ICD-9-D-44032,ICD-9-D-4404,ICD-9-D-4408
Congestive Heart Failure	ICD-9-D-4280,ICD-9-D-4281,ICD-9-D-42820,ICD-9-D-42822,ICD-9-D-42830,ICD-9-D-42832,ICD-9-D-42840,ICD-9-D-42842,ICD-9-D-4289
Coronary Artery Disease	ICD-9-D-41400:ICD-9-D-41405,ICD-9-D-4142:ICD-9-D-4144,ICD-9-D-4148,ICD-9-D-4149
Chronic Kidney Disease	ICD-9-D-5851:ICD-9-D-5856,ICD-9-D-5859
Dialysis	ICD-9-P-3995
Chronic Obstructive Pulmonary Disease	ICD-9-D-4910,ICD-9-D-4911,ICD-9-D-49120:ICD-9-D-49122,ICD-9-D-4918:ICD-9-D-4920,ICD-9-D-4928
Liver Disease	ICD-9-D-5712,ICD-9-D-5713,ICD-9-D-57140,ICD-9-D-57142,ICD-9-D-57149,ICD-9-D-5715,ICD-9-D-5718,ICD-9-D-5719

The growth of outpatient spine — 9 Key Points

Written by Scott Becker and Megan Wood | February 03, 2016 | Print | Email

The last 10 years have seen an immense growth in outpatient spine. This article briefly discusses some of the challenges, thoughts and observations on this growth. The growth has been driven by several top line factors including (1) surgeons becoming much more comfortable with outpatient spine including younger surgeons initially training up with outpatient spine; (2) patients becoming less scared of outpatient spine surgery and more concerned regarding hospital based infections; and (3) payers becoming more willing to allow spine cases to move from hospitals to ASCs. There remains pushback from payers as to the amount of spine surgeries in total and from hospitals as to the movement of surgeries out of hospitals.

1. From 2005 to 2015, there has been a movement to a place where nearly 45 percent of all spine cases done on an outpatient basis. This compares to approximately 5 percent in 2005, according to the Society for Ambulatory Spine surgery.

2. The total number of spine cases per year is nearly 650,000 to 700,000. Of these, approximately 280,000 to 300,000 are done on an outpatient basis. [Lumbar decompression and anterior cervical fusions, for example, are most commonly performed in the outpatient setting.]

3. The drivers of outpatient spine include several different factors. These include (1) lower cost per case in an outpatient setting; (2) improved technology; (3) younger doctors who grew up on outpatient spine immediately out of (or in) their residencies and fellowships; (4) patient preferences for performing surgeries where they are in and out; (5) significant improvements in anesthesia; and (7) great improvements in postsurgical pain management.

According to data published by NeoSpine founder Richard Wohns, MD, outpatient single-level cervical discectomy and fusion, average facility fee for the ambulatory surgery center is $28,365. The implants cost $1,800 and total bills charged are around $30,165. The average insurance payment is $11,065 and average patient copay was $1,122.

4. Medicare also has been a newer driver of outpatient spine. Recently, in 2014 and effective in 2015, Medicare approved nine different codes that could be used for outpatient spine procedures in the surgery center. This was the first time this was done.

The nine new procedure codes on the ASC payable list in 2015 include:

1. [Neck spine fuse & remov bel c2 (22551)]
2. Neck spine fusion (22554)
3. Lumbar spine fusion (22612)
4. Neck spine disc surgery (63020)
5. Low back disc surgery (63030)

6. Laminectomy single lumbar (63042)
7. Removal of spinal lamina (63045)
8. Removal of spinal lamina (63047)
9. Decompression spinal cord (63056)

5. Payers have been very ambivalent about outpatient spine in surgery centers. This has often been due to the fact that hospitals fought very hard with payers to keep those cases at hospitals. Thus, there has been some reluctance for spine surgeons to push hard to move cases to surgery centers. More recently, we have seen some of these payers relent. For example, one surgery center that was cut off from outpatient spine for years finally signed a contract with a Blue Cross entity that will now allow them to do a great deal of the cases in the surgery center. This reflects a significant change from years ago.

6. There are also a great number of spine practices and spine surgery centers that are doing business on a cash or out-of-network basis. The patient may still bill the payer for reimbursement. However, on the upfront situation, the surgery center accepts cash or out-of-network. This has been a model for success in several different practices and centers.

The Orthopedic Surgery Center of Orange County in Newport Beach, Calif., for example, practices price transparency by listing all-inclusive prices for 54 procedures, including six spine procedures. The charges include:

- Minimally invasive discectomy, laminectomy, laminotomy: $14,225
- Two-level MIS discectomy, laminectomy, laminotomy: $16,200
- Single-level MIS lumbar fusion with overnight stay: $30,000
- Two-level MIS lumbar fusion with overnight stay: $38,000
- MIS discectomy and/or fusion with overnight stay: $31,500

7. Another interesting statistic about outpatient spine relates to the fact that it's estimated that inpatient costs are approximately five times those of outpatient costs. A study published in *Surgical Neurology International* reports outpatient single-level cervical disc arthroplasty was 84 percent less than inpatient cervical disc arthroplasty and 62 percent less expensive than outpatient single-level cervical anterior discectomy with fusion using allograft and plate.

Thus, there has also been great movement driven by the difference in cost to doing procedures in surgery centers versus hospitals.

8. Finally, surgeons have a great ability to be the leaders in projects and bundles. They need enough infrastructure and strength to be able to lead on such projects. Spine surgery costs drastically vary, which impacts spine-focused bundled payments. A 2014 study published in *Spine* reported 30-day bundles range from $11,180 to $107,642. The post-discharge care accounted for 4 percent to 8 percent of the overall costs in 90-day bundles. The largest portion of the bundled cost were hospital payments; 76 percent of the bundle went toward hospital payments on average. Bundled payments are beginning to catch on among large

companies as well. Wal-Mart established bundled payments for six specialties, including spinal surgery, in 2013.

As to bundled payments, the surgeon has (1) great control over implants; (2) the time spent in the operating room; (3) time under anesthesia; (4) length of stay; and (5) recovery time. Thus the surgeons are in a great spot to engineer the actual savings and cost-savings of doing a case in a surgery center versus in a hospital or elsewhere. The surgeons are also in a great place to be in charge of the evolution of the management of the total cost of the procedure.

9. Outpatient spine is also growing due to the evolution in recovery care settings. More and more states are more flexible about allowing patients to go home or go to a different venue for recovery care time. It is not so much that payers are increasingly paying for those. Often they are paid for out of the surgery center bundle or the surgeons' bundle. However, more and more states are more permissive about a patient being released to a hotel, a home or some other place where they will have postsurgical care.

The state of Florida is one example of the expanding legislation. Legislators have attempted multiple times over the past few years to extend surgery center patient stays. Earlier this year, bills in the Florida House and Senate were introduced to allow ASCs to keep patients up to 24 hours as well as 72 hour stays at recovery care centers.

More articles on spine:
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355 - Spine Surgery at an Ambulatory Surgery Center...

#355 Spine Surgery at an Ambulatory Surgery Center

Basic Sciences-Research

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Abstract

Purpose: Can spine surgery be safely performed at an ambulatory surgery center (ASC)? This question has important ramifications for providing quality spine surgery care at lower costs.

Methods: Seven hundred and ten consecutive spine surgeries performed at an ASC from spring 2005 through 2008 were prospectively evaluated.

Instrumented Spine Surgery

333 Patients

Anterior Cervical Fusion

· 1 Level : 108 Patients

· 2 Level : 82 Patients

· 3 Level : 3 Patients

Cervical Artificial Disc: 57 Patients

Lumbar Artificial Disc : 83 Patients

Non-Instrumented Spine Surgery 377 Patients

Lumbar microdiscectomies and/or nerve decompressions

All cases were evaluated with ODI, NDI and VAS. The patients were evaluated at pre-op, three-month, six-month, one-year and often two-year follow-up. The analysis also included minutes in the operating room, recovery and convalescent center as well as patient satisfaction. This data will be presented. Insurance analysis of costs at an ASC vs. hospital was performed by an outside BCBS analysis.

Results: In 193 anterior cervical fusion patients, there were no perioperative complications and no unplanned transfers with statistically significant improvement in NDI and VAS values ($p < 0.01$).

Cervical artificial disc replacements were performed in 57 patients. There was statistically significant improvement in NDI and VAS at two-year follow-up to a p-value < 0.02. There were no perioperative complications and no unplanned transfers in these patients. Lumbar artificial disc replacements were performed in 83 patients. One patient had an unplanned hospital transfer. There was a statistically significant improvement in ODI and VAS to a p-value < 0.001 at two-year follow-up.

Non-instrumented spine surgery was performed in 377 patients. One patient had a perioperative complication. There were no unplanned transfers to the hospital. All of the patients undergoing an anterior cervical fusion, cervical and lumbar artificial disc replacement and non-instrumented lumbar spine surgery were released home within 24 hours of their surgery.

Outside insurance audits indicate a 60% cost savings when performing these procedures at an ASC versus a standard hospital setting. Patients reported a 97% satisfaction rate.

Conclusions: Prospective analysis of 710 spine cases at an ASC indicate anterior cervical fusion, lumbar nerve decompression, discectomy, lumbar and cervical artificial disc replacements can be safely performed with efficacy at an ASC.

Spine Surgery in an Ambulatory Setting: What Can Be Done Safely?

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» The performance of operative procedures in an ambulatory surgery center has potential benefits to the patient, insurer, and surgeon.

» Factors associated with the patient's preparedness for the operation as well as the operation itself need to be considered when deciding if a patient is a good candidate for spine surgery at an ambulatory surgery center.

» Anterior cervical discectomy and fusion is a commonly performed procedure at an ambulatory surgery center, and, while it is generally considered safe, potentially life-threatening complications have been reported.

» In properly selected patients, lumbar microdiscectomies and laminectomies can be safely performed at an ambulatory surgery center.

» While all ambulatory surgery centers are required to have an established transfer plan to a hospital, it is important, especially in cases of spine surgery, that the hospital has the ability to take care of a neurologic complication. Furthermore, the ability to transfer the patient in a timely manner is critical.

The first ambulatory surgery center was established in 1970 in Phoenix, Arizona by two surgeons with a vision of providing more convenient surgical services to their community. Twelve years later, Medicare approved the first payments to ambulatory surgery centers, sparking an era of substantial growth. By 1988, there were 1000 ambulatory surgery centers in the United States, and today more than 23 million procedures are performed yearly at 5300 ambulatory surgery centers[1].

Because ambulatory surgery centers are delivering health care to patients, they require accreditation similar to traditional hospitals; however, while they can be accredited by The Joint Commission (http://www.jointcommission.org/) or the Healthcare Facilities Accreditation Program (HFAP) (http://www.hfap.org/) as can traditional hospitals, they also may be accredited by ambulatory surgery center-specific firms such as the American Association for Accreditation of Ambulatory Surgery Facilities (AAAASF) (http://www.aaaasf.org/) or the Accreditation Association for Ambulatory Health Care (AAAHC) (http://www.aaahc.org/). Additionally, all ambulatory surgery centers are required to have a hospital transportation plan in case a medical need arises that exceeds the capabilities of the ambulatory surgery center.

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TABLE I Ambulatory Surgery Center Corporations

Name	Number of Centers	Number of Operating Rooms	Annual Revenues
AmSurg	198	496	$1.07 billion
Surgical Care Affiliates	125	551	$750 million
United Surgical Partners International	143	506	$616 million

Ambulatory surgery centers initially were designed for outpatient procedures, including therapeutic procedures (e.g., knee arthroscopy), diagnostic procedures (e.g., colonoscopy), and injections requiring imaging or some level of sedation. While patients undergoing simple knee arthroscopies and epidural steroid injections invariably go home the same day, ambulatory surgery centers are accredited to perform any outpatient procedure, which is defined by the Centers for Medicare & Medicaid Services (CMS) as any procedure requiring a stay of less than twenty-four hours after admission[2]. Similarly, the definition of outpatient procedures[3] as stated in the Medicare Benefit Policy Manual is:

> When patients with known diagnoses enter a hospital for a specific minor surgical procedure or other treatment that is expected to keep them in the hospital for only a few hours (less than 24), they are considered outpatients for coverage purposes regardless of the hour they came to the hospital, whether they used a bed, and whether they remained in the hospital past midnight.

Because this definition clearly allows for operations that require an overnight admission to be performed in an ambulatory surgery center, there is an increasing trend for traditional inpatient operations such as anterior cervical discectomy and fusions[4] and total hip arthroplasties[5] to be performed at ambulatory surgery centers. The goal of this review is to evaluate the rationale for and safety of this trend.

Rationale

The benefits of ambulatory surgery centers for the patient, insurer, and surgeon are well documented. The most obvious benefit of an ambulatory surgery center over a hospital is the convenience for patients. Rather than traveling to a large tertiary care hospital, patients can go to an ambulatory surgery center, which is often more easily accessible. The overall convenience, friendly staff, minimal wait times, efficiency, and ease of parking allow for ambulatory surgery centers to have an overall patient satisfaction rate of 92%[6]. Furthermore, the benefits are not limited to the patient as moving procedures out of hospitals and into ambulatory surgery centers has led to $2.6 billion in annual cost savings to Medicare alone[6]. Last, the efficiency and focus on quality in ambulatory surgery centers has led to high rates of surgeon satisfaction.

In spite of the quantifiable benefits reported to patients, insurers, and physicians, the growth of ambulatory surgery centers has drawn criticism. Sixty-five percent of ambulatory surgery centers are wholly owned by physicians, and >90% have some level of physician ownership[7]. This ownership stake creates a conflict of interest for surgeons. Physicians have the ability to preferentially allocate cases for their surgery center by directing healthier patients with higher-reimbursing insurance policies to their surgery centers while directing medically complex patients who will require increased health-care costs and patients with lower-reimbursing insurance to the hospital[8]. This situation potentially puts the burden of caring for patients who will require more expensive care or who have lower-reimbursing insurance on the hospitals. Bekelis et al., in a report on approximately 150,000 patients who underwent a microdiscectomy between 2005 and 2008, found that patients with private insurance and those with a lower Charlson Comorbidity Index[9] were more likely to undergo surgery at an ambulatory surgery center, whereas older patients and patients with Medicaid were more likely to undergo inpatient surgery[8]. However, whether these findings were the result of surgeons preferentially allocating cases or surgeons carefully choosing patients in whom it would be safe to perform surgery at an ambulatory surgery center is unclear.

Additionally, because of the financial interests of surgeons, procedures that would be more suitable for a hospital operating room might be performed at an ambulatory surgery center, thereby putting patients at unnecessary risk. In a recent survey, Baird et al. reported a nonsignificant trend for higher-risk spine operations at ambulatory surgery centers to be performed by surgeons who have a financial investment in the ambulatory center as compared with those who do not[10].

Financial Rationale

In the United States, the ambulatory surgery center industry has annual revenues in excess of $24 billion, with nearly 5% annual growth[11]. As a result, many large corporations have begun focusing on developing, owning, and operating ambulatory surgery centers (Table I). With the aforementioned benefits to health-care participants and the influx of corporate spending, ambulatory surgery centers have had a steady rise in the market share of some of the most commonly performed procedures (cataracts, arthroscopy, endoscopy, and colonoscopy) over the past ten years[11].

When the costs of procedures performed at ambulatory surgery centers are compared with the costs of procedures performed in hospital outpatient departments, the differences are dramatic. In 2003, reimbursement for a procedure performed at an ambulatory surgery center was only slightly less than

TABLE II Patient and Medicare Cost for Procedures Performed at an Ambulatory Surgery Center and a Hospital

	Patient Cost		Medicare Cost	
	Ambulatory Surgery Center Copay	Hospital Copay	Ambulatory Surgery Center Copay	Hospital Copay
Cataract surgery	$193	$490	$964	$1670
Upper gastrointestinal endoscopy	$68	$139	$341	$591
Colonoscopy	$76	$186	$378	$658

that for the same procedure performed in a hospital. Today, however, Medicare reimbursement for a procedure performed at an ambulatory surgery center is 42% less than that for the same procedure performed in a hospital (Table II)[12]. Importantly, this difference applies not only to what the facility and surgeon are paid but also to the patient's out-of-pocket expenses. While this decline in reimbursement benefits patients and insurers, it is also a cause of the overall slowdown in the growth of ambulatory surgery centers over the last five years.

In spite of the decreasing speed with which ambulatory surgery centers are expanding, the overall number of procedures performed at ambulatory surgery centers in all surgical fields continues to increase[13]. As one would expect, this trend has occurred in spine surgery as well[4,8]. Spine surgery is particularly appealing to ambulatory surgery centers as it represents an area of remarkable growth and profit. In the inpatient setting, spine procedures often represent 20% to 25% of orthopaedic procedures but contribute >50% of profits[14]. Similarly, in ambulatory surgery centers, spine procedures have the highest contribution margin per operating room minute of all surgical cases ($48); in comparison, pain-management procedures have a $28 margin per operating room minute and ophthalmology procedures have only a $4 margin per operating room minute[14]. As a result, the average spine procedure generates between $10,000 and $20,000 of net revenue. Considering that a high-volume spine surgeon can easily perform four or more procedures a day, a successful spine program offers a high return on investment for ambulatory surgery centers, even with approximately $400,000 to $500,000 needed in initial capital expenditure[14].

Safety

Anesthesia at an Ambulatory Surgery Center

There are mounting data focusing on ambulatory surgery centers and outpatient surgery in the anesthesia literature. The Society for Ambulatory Anesthesia (SAMBA), whose goal is to provide guidance for the use of anesthesia in an ambulatory setting, was founded in 1985 and has >1500 active members. The Society has established practice guidelines on some of the important treatment decisions regarding patients undergoing anesthesia in an ambulatory setting[15]. In an effort to safely minimize postoperative nausea, SAMBA recommends avoiding general anesthesia when possible, using propofol for induction and maintenance, avoiding nitrous oxide and other volatile anesthetics, minimizing opioids, and maintaining adequate hydration[15]. While avoiding general anesthesia is difficult in most procedures involving the spine, this recommendation is appropriate for many other orthopaedic procedures. Similarly, in an effort to provide the safest and most efficacious perioperative pain relief for patients with sleep apnea, SAMBA recommends the use of non-opioid medications to prevent excessive respiratory depression. Last, SAMBA attempted to establish a consensus of how perioperative diabetes mellitus should be treated at an ambulatory surgery center. Although the society was not able to establish clear guidelines, it does recommend that all diabetic patients undergoing surgery at an ambulatory surgery center should have a hemoglobin A1C of <7%[15].

While anesthesiologists have identified ways to improve safety for patients undergoing surgery at an ambulatory surgery center, patient-related factors also play a critical role. In 2013, Mathis et al. identified seven risk factors for early adverse events (defined as those occurring less than seventy-two hours postoperatively) for patients undergoing ambulatory surgery. Using the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) database, they reviewed 244,297 outpatient procedures from 2005 to 2010 and reported 232 events (prevalence, 0.1%). After controlling for surgical complexity, the independent risk factors for an early adverse event following ambulatory surgery were prolonged operative time (defined as a surgical time greater than the Current Procedural Terminology [CPT] code-specific 75th percentile for each surgical procedure), overweight body mass index (BMI) (>25), obese BMI (>30), chronic obstructive pulmonary disease, history of transient ischemic attack or stroke, hypertension, and previous cardiac surgery[16].

Similarly, Whippey et al. performed a historical case-control study to determine the rate of and risk factors for unanticipated admission after ambulatory surgery[17]. With use of data from Hamilton Health Sciences hospitals, 20,657

TABLE III Patient Risk Factors That Make Complications More Likely When Undergoing Surgery at an Ambulatory Surgery Center

BMI >30
Chronic obstructive pulmonary disease
Previous cardiac surgery
History of stroke or transient ischemic attack
Hypertension
Hemoglobin A1C >7.0%
Age >80 years
American Society of Anesthesiologists (ASA) score of ≥3
Prolonged operative time (defined as an operative time greater than the CPT code-specific 75th percentile for the procedure, or, more stringently, as any procedure lasting longer than 1 hour)

ambulatory surgical procedures were identified, and the rate of unanticipated admission was 2.67%. The reasons for admission were variable, with surgical and anesthesia concerns accounting for 40% and 20% of readmissions, respectively. Risk factors for hospital admission were similar to those reported by Mathis et al. and included a BMI of >30, an age of more than eighty years, an American Society of Anesthesiologists (ASA) score of ≥3 (a surrogate for medical comorbidities), and an operative time of longer than one hour[17]. An evidence-based list of patient-related and surgical risk factors that may make surgery at an ambulatory surgery center inappropriate is provided in Table III. However, it is also important to consider social factors when deciding if a patient is appropriate for surgery at an ambulatory surgery center. Although a patient may have none of the listed risk factors, a tenuous social situation may increase the risk that the patient will return to the emergency room for care.

Spine Surgery at an Ambulatory Surgery Center

Cost Savings in Spine Surgery at an Ambulatory Surgery Center

Pettine reported on safety, outcome, and cost in a series of 710 consecutive spine procedures that were performed at an ambulatory surgery center[18]. The procedures included 108 one-level, eighty-two two-level, and three three-level anterior cervical discectomy and fusion procedures; fifty-seven cervical disc replacements; eighty-three lumbar disc replacements; and 377 lumbar decompressions. Overall, there was an improvement in patient-reported outcomes in all groups, and the rate of patient satisfaction was 97%. A cost analysis identified a 60% cost reduction in association with operations that were performed at ambulatory surgery centers rather than hospitals[18]. However, it is likely that patient-related factors played an important role in this cost reduction. Walid et al. performed a retrospective review in which ninety-seven outpatient spine procedures were compared with 578 inpatient procedures[19]. While the authors reported an average cost decrease of $3000 to $6000 per procedure, they also reported that the patients who underwent outpatient spine surgery were younger and had significantly ($p < 0.05$) decreased rates of congestive heart failure, diabetes mellitus, and depression. It is likely that these healthier patients also would have had a lower cost per operation if they had been managed in the hospital.

Safety in Cervical Spine Surgery at an Ambulatory Surgery Center

Multiple cervical spine operations have been reported to be done safely at ambulatory surgery centers, including anterior cervical discectomy and fusion procedures, cervical disc replacements, and posterior laminoforaminotomies[20-24]; however, we are not aware of any studies on the safety of posterior cervical decompression and fusion procedures or laminoplasties performed at ambulatory surgery centers. The safety of performing anterior cervical discectomy and fusion procedures in an ambulatory surgery center was first evaluated by Stieber et al.[21] in 2005, and, since that time, anterior cervical discectomy and fusion has become one of the primary spine procedures being done in ambulatory surgery centers[4,21]. Stieber et al. retrospectively reviewed thirty patients who underwent an anterior cervical discectomy and fusion procedure at an ambulatory surgery center[21]. Patients in that study were meticulously selected such that all were subjected to a primary one or two-level operation between C4 and C7. In addition, patients were excluded if they were myelopathic, if they had a concerning discharge environment, or if the operation lasted longer than two hours. In that highly controlled population, the authors reported that three patients (10%) had dysphagia but no other complications. The authors concluded that anterior cervical discectomy and fusion can be performed safely in an ambulatory surgery center in properly selected patients[21].

Over the last nine years, many other studies have demonstrated the safety of performing anterior cervical discectomy and fusion at an ambulatory surgery center[20,23]. Villavicencio et al. performed a retrospective review of a nonconsecutive series of 103 patients who underwent an anterior cervical discectomy and fusion procedure on an outpatient basis[23]. Ninety-nine patients who underwent a one or two-level procedure went home an average of eight hours after the operation, and the four patients who had a three-level procedure were observed overnight but were discharged within twenty-three hours after admission. Only one patient required readmission to the hospital after the development of severe dehydration. Similar to Stieber et al., the authors concluded that anterior cervical discectomy and fusion can be performed safely

in an ambulatory surgery center with use of meticulous surgical technique in properly selected patients.

Garringer and Sasso reported the results of the largest series to date on the safety of performing anterior cervical discectomy and fusion as an outpatient procedure[20]. The authors retrospectively reviewed the rate of acute complications (complications occurring less than forty-eight hours postoperatively) in a study of 645 consecutive patients who underwent a single-level anterior cervical discectomy and fusion. Prior to discharge, all patients were observed for four hours after completion of the operation. The authors reported a 6% rate of unanticipated hospital admission, and two patients developed epidural hematomas, one of which required an emergent decompression. Both hematomas occurred within an hour after the end of the operation; thus, in spite of these two possible life-threatening complications, the authors still asserted that a single-level anterior cervical discectomy and fusion can be performed safely as an outpatient procedure, provided that the patient is observed for an appropriate time after the operation.

Wohns reported the results of a small retrospective study of twenty-six consecutive patients with cervical radiculopathy who underwent cervical disc arthroplasty in either an ambulatory center (fourteen patients) or in a hospital (twelve patients)[24]. All patients were observed for a minimum of three hours postoperatively, and none developed a complication. However, a cost saving was associated with performing the procedure in an ambulatory surgery center ($11,000 compared with $68,000).

Similarly, there is minimal literature on the safety and efficacy of performing a posterior laminoforaminotomy in an ambulatory surgery center. However, on the basis of the available literature, this procedure does appear to be safe. Tomaras et al. reported on 183 patients with minimal comorbidities who underwent a posterior laminoforaminotomy on an outpatient basis[22]. All patients were observed for a minimum of four hours after surgery and were required to void, tolerate oral intake, and walk without assistance prior to discharge. The main complaint postoperatively was nausea and vomiting (three patients; 1.6%), and the overall results were very favorable, with 93% of patients reporting an excellent or good result.

While the safety of performing cervical surgery in an ambulatory surgery center has been reported, the surgeon and the patient must be aware of the possibility of rare complications and how these complications can be handled at an ambulatory surgery center. Some rare complications, such as epidural hematoma, are life-threatening events, but successful and safe treatment can be provided by the orthopaedic surgeon without assistance from another subspecialty. Furthermore, performing the procedure at an ambulatory surgery center does not prevent the surgeon from placing a surgical drain and keeping the patient for observation overnight. However, other rare complications, such as a vertebral artery injury or an esophageal injury, often require an intraoperative consultation with another surgical subspecialty (e.g., vascular surgery or otolaryngology) that may not be available in an ambulatory surgery center.

Vertebral artery injuries are rare events, occurring in association with approximately 0.3% to 0.5% of all anterior subaxial cervical procedures[25,26]. While this complication most commonly occurs in association with complex procedures, such as corpectomies for the treatment of infection or tumor, it has been reported in association with primary one and two-level anterior cervical discectomy and fusion procedures[25-27]. Curylo et al., in a well-known cadaveric study, reported a 2.7% incidence of an aberrant vertebral artery[28]; thus, preoperative assessment of the location of the artery on cross-sectional imaging is paramount. Damage to this artery can present with a wide variety of clinical sequelae, ranging from minimal symptoms to lateral medullary (Wallenberg) syndrome, quadriparesis, and death[25-27,29].

If a vertebral artery injury occurs, the surgeon must achieve control of the hemorrhage and decide if a direct repair, a bypass, or sacrifice of the vessel is appropriate. In a hospital, this decision often is made and treatment is performed in conjunction with a vascular surgeon; however, in an ambulatory surgery center, the orthopaedic surgeon may be forced to either directly repair the vessel with 7-0 or 8-0 Prolene (Ethicon, Somerville, New Jersey) or sacrifice the vessel, even though the neurologic complication rate has been reported to be as high as 43% if the vessel is sacrificed[26,30,31].

Esophageal injuries are even more rare, with the rate of such injuries during elective anterior cervical procedures ranging from 0.1% to 0.3%[32-34]. These injuries are usually the result of misplaced retractor blades or sharp surgical dissection[35]. While these injuries most commonly are identified in a delayed manner[36,37], multiple techniques, such as intraesophageal dye injection and direct visualization via endoscopy, have been described to aid in the identification of possible iatrogenic injuries[38]. If the injury is identified intraoperatively, the esophagus may be able to be repaired primarily[32] and the patient should be placed on broad-spectrum antibiotics and fed via a nasogastric tube for ten days. While the mortality rate associated with a cervical esophageal tear may be as high as 16% if the tear is identified postoperatively[37], the mortality rate may be drastically reduced if the injury is recognized intraoperatively and proper postoperative management is performed[39,40]. An otolaryngologist is often consulted in a hospital to help assess and treat a suspected esophageal injury; however, this may not be possible at an ambulatory surgery center, leaving the orthopaedic surgeon solely responsible for identifying and treating the injury.

Although many reports have supported the safety of performing cervical spine surgery at an ambulatory surgery center[20-24], the risks of rare but serious complications need to be considered. Currently, the senior author (A.R.V.)

TABLE IV Summary of Lumbar Decompression Studies

Authors	Study Design	No. of Patients	Procedure	Percentage of Patients Requiring Inpatient Admission	Reasons for Inpatient Admission
Zahrawi[45]	Retrospective	103	Microdiscectomy	3%	Urinary retention, postoperative nausea
An et al.[41]	Prospective	61	Microdiscectomy	6%	Urinary retention, pain, social
Asch et al.[42]	Prospective	212	Microdiscectomy	Unclear	
Best and Sasso[43]	Retrospective	263	Laminectomy, microdiscectomy	11.4%	Pain, persistent somnolence, urinary retention, social
Singhal and Bernstein[44]	Prospective	122	Microdiscectomy	5%	Dural tear, urinary retention, postoperative nausea, laryngospasm

will only perform cervical spine surgery at locations where it is possible for patients to be observed for twelve to twenty-four hours as the majority of complications occur within the first several hours after cervical spine surgery.

Lumbar Spine Surgery at an Ambulatory Surgery Center

The spinal procedure that is most commonly performed on an outpatient basis is a single-level lumbar decompression[41-45]. Several reports have supported the safety of performing this procedure on an outpatient basis (Table IV). In 1994, Zahrawi retrospectively reviewed the records for 103 patients who underwent an outpatient lumbar microdiscectomy[45]. Three patients were admitted because of urinary retention and postoperative nausea, but no serious complications were reported. Similarly, in a prospective case series, An et al. reported that fifty-seven of sixty-one patients were able to go home after a microdiscectomy[41]. One patient was admitted to the hospital for pain control, and another was admitted because of urinary retention. The remaining patients who were hospitalized were admitted only because of a lack of social support. The largest prospective series of outpatient lumbar microdiscectomies was described by Asch et al. in 2002[42]. Two hundred and twelve patients underwent a microdiscectomy; however, the exact number of patients who were able to go home the same day is unclear. Still, the authors concluded that outpatient microdiscectomy is safe and effective.

The role of proper patient selection is paramount as not all patients are ideal candidates for a lumbar decompression at an ambulatory surgery center. Best and Sasso reported that thirty (11.4%) of 263 patients over the age of sixty-five years who had a single-level microdiscectomy or laminectomy required hospital admission[43], and comorbidities such as obesity, chronic obstructive pulmonary disease, and a history of a stroke increase the risk of needing hospitalization[16]. Furthermore, the likelihood of specific complications should be considered before performing a lumbar decompression at an ambulatory surgery center. While dural tears have been repeatedly shown not to affect long-term results[46,47], they do have an impact on postoperative management[46,48,49]. The overall rate of dural tears in lumbar spine surgery has been reported to be approximately 2.9%[48]; however, this rate is increased in older patients, patients undergoing a decompression for the treatment of a facet cyst, and patients undergoing a revision decompression[49-51]. Special consideration is required before performing a lumbar decompression at an ambulatory surgery center for a patient who is at high risk for a dural tear. Recent literature has suggested that there may not be a benefit to flat bed rest for more than twenty-four hours[52,53]. However, in clinical practice, many surgeons are still managing patients with flat bed rest for twenty-four hours or more, and such treatment may not be possible at an ambulatory surgery center.

More recently, there has been a push to perform single-level lumbar fusion as an outpatient procedure; however, there is a paucity of literature on the safety of doing so. In the study by Villavicencio et al., twenty-seven patients who underwent a transforaminal lumbar interbody fusion in an ambulatory surgery center were compared with twenty-five patients who underwent the procedure in a hospital[54]. Patients who had the procedure in an ambulatory surgery center were discharged an average of 4.4 hours after surgery, whereas those who had the procedure in a hospital were discharged an average of twenty-one hours after surgery. Four patients (15%) who underwent surgery at the ambulatory surgery center were readmitted or visited the emergency department in the first week after surgery, compared with only one patient (4%) who underwent surgery in the hospital. On the basis of the results of their study, the authors were cautiously optimistic that lumbar fusion could be performed on an outpatient basis.

While there is little published information to guide the discussion on

performing lumbar fusion at an ambulatory surgery center, we have concerns. Recently, there has been a push to perform more spine procedures with a minimally invasive technique in the hope of getting patients out of the hospital faster. While minimally invasive spine surgery can be done effectively, this technique has a steep learning curve[55], and the decrease in morbidity is often accompanied by an increase in radiation exposure to the patient and the operating room staff[56,57]. While the merits of minimally invasive spine surgery are beyond the scope of this article, it is important to emphasize that basic principles should not be deviated from in order to perform surgery in a minimally invasive manner. In the aforementioned study by Villavicencio et al., unilateral pedicle screws were used in twenty patients[54]. While this technique inherently will save time, decrease blood loss, and possibly reduce pain—making it an attractive option for patients undergoing surgery at an ambulatory surgery center—it has been repeatedly demonstrated to be biomechanically inferior to bilateral pedicle screw fixation[58,59]. We are not aware of any high-level studies comparing the fusion rates of unilateral and bilateral fixation; however, previous studies have clearly indicated that an increase in stability leads to an increase in fusion rates and an improvement in long-term clinical results[60].

Conclusion

Spine surgery in ambulatory surgery centers is becoming increasingly common, and, when done in carefully selected patients, it can be safe and effective. However, its use is not without controversy[20,23,24,41,42,54]. Catastrophic complications such as epidural hematoma after anterior cervical discectomy and fusion have been reported, and the ability to treat rare complications such as vertebral artery injuries and esophageal tears may be compromised[20]. In addition, elderly patients and patients with multiple comorbidities may be better managed at a hospital as they are at an increased risk of requiring admission[17,43].

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77 Ill. Admin. Code Section 1110.230 (c) Alternatives

1. Take No Action.

There are multiple reasons why this alternative was rejected. The Illinois Spine Institute is already operating has an established patient base that relies on them for care that sustains and very often drastically improves the quality of their life. CMS has recently shifted reimbursement models and has signaled to healthcare providers that these types of procedures should be moved to the ASTC setting. In addition, there are many procedures that can only be performed in either an ASTC or hospital surgical suite setting. As we will describe next, there are several issues with performing this procedures in a hospital surgical suite setting. For these reasons, this alternative was rejected.

2. Utilize a Hospital Surgical Suite

As previously mentioned, the hospital surgical suite has a host of issues, with the most prevalent being the high cost of inpatient care and access. The same procedures that can be performed in a hospital surgical suite can be performed at a lower cost, with the same high quality of care, and with equal results. For these reasons, this alternative was rejected.

3. Rely on Available Capacity at Other Surgery Centers

Illinois Spine Institute is a world class facility that has been in operation, has an established patient base in Schaumburg, Illinois. They currently operate a medical office based practice where the proposed ASTC will be located. In order to rely on other surgery centers our physicians would have to obtain permission from these providers and work around their existing schedules to use whatever time is available at the facility for their own procedures, This can be incredibly difficult for both the physician owners and their respective patients to schedule a time for procedure. This alternative would also require patients suffering from debilitating pain to travel from their home medical office to an ASTC that is will to accommodate their procedure. This additional travel burden is unnecessary given the ability of the procedure to be completed at Illinois Spine Institute. For these reasons, this alternative was rejected.

4. Acquire an Existing ASTC

This option does make sense for a number of reasons. The largest of which is the economic considerations involved with purchasing a ASTC. As an existing office based practice, Illinois Spine Institute has already invested in the facility and equipment that would make the acquisition of another ASTC cost prohibitive. The purchase of another ASTC would require the applicants to identify a facility, purchase the facility, the modernize the facility to meet the needs of their patient

population, and this series of events would without a doubt exceed the costs of the proposed project. For these reasons, this alternative was rejected.

Size of Project 77 Ill. Admin Code Section 1110.120 Project Scope, Utilization

SIZE OF PROJECT				
DEPARTMENT/SERVICE	PROPOSED BGSF/DGSF	STATE STANDARD	DIFFERENCE	MET STANDARD?
ASTC	2881	2075-2750	N/A	YES

This project involves the conversion of medical off space to allow it to come into compliance with Illinois Department of Public Health standards to be license as an Ambulatory Surgical Treatment Center. One procedure is envisioned, and the proposed project involves the conversion of existing space that is within the established state standard.

The design of the facility and the separation between clinical and non-clinical space is designed to maximize patient benefits while being respectful and appreciative of the applicable government standards.

This project expects to be found in compliance with the established State Standard.

Size of Project 77 Ill. Admin Code Section 1110.120 Project Services Utilization

UTILIZATION					
	DEPT./ SERVICE	HISTORICAL UTILIZATION (PATIENT DAYS) (TREATMENTS) ETC.	PROJECTED UTILIZATION	STATE STANDARD	MEET STANDARD?
YEAR 1	ASTC	1080	89%	>1500	YES
YEAR 2	ASTC	1134	93%	>1500	YES

The number of 1080 predicted procedures are derived from patients and procedures envisioned emanating directly from current patients and from the 5 referral letters included in this application. The referral letters reflect proposed referrals to this facility over the first two years of its operation. The average procedure time of 107 minutes was derived from evaluating already maintained documentation (included in this application) tracking patient procedures. With an envisioned 270 days open to perform procedures and 8 hours each date, the resulting 1080 procedures would result in 1,922 hours or 89% of the available 2019 hours the surgical suite could be utilized. In year 2 the resulting 1134 procedures would result in 2018 hours or 93% of the available hours the surgical suite could be utilized.

1110.235(c)(2)(B) – Service to GSA Residents

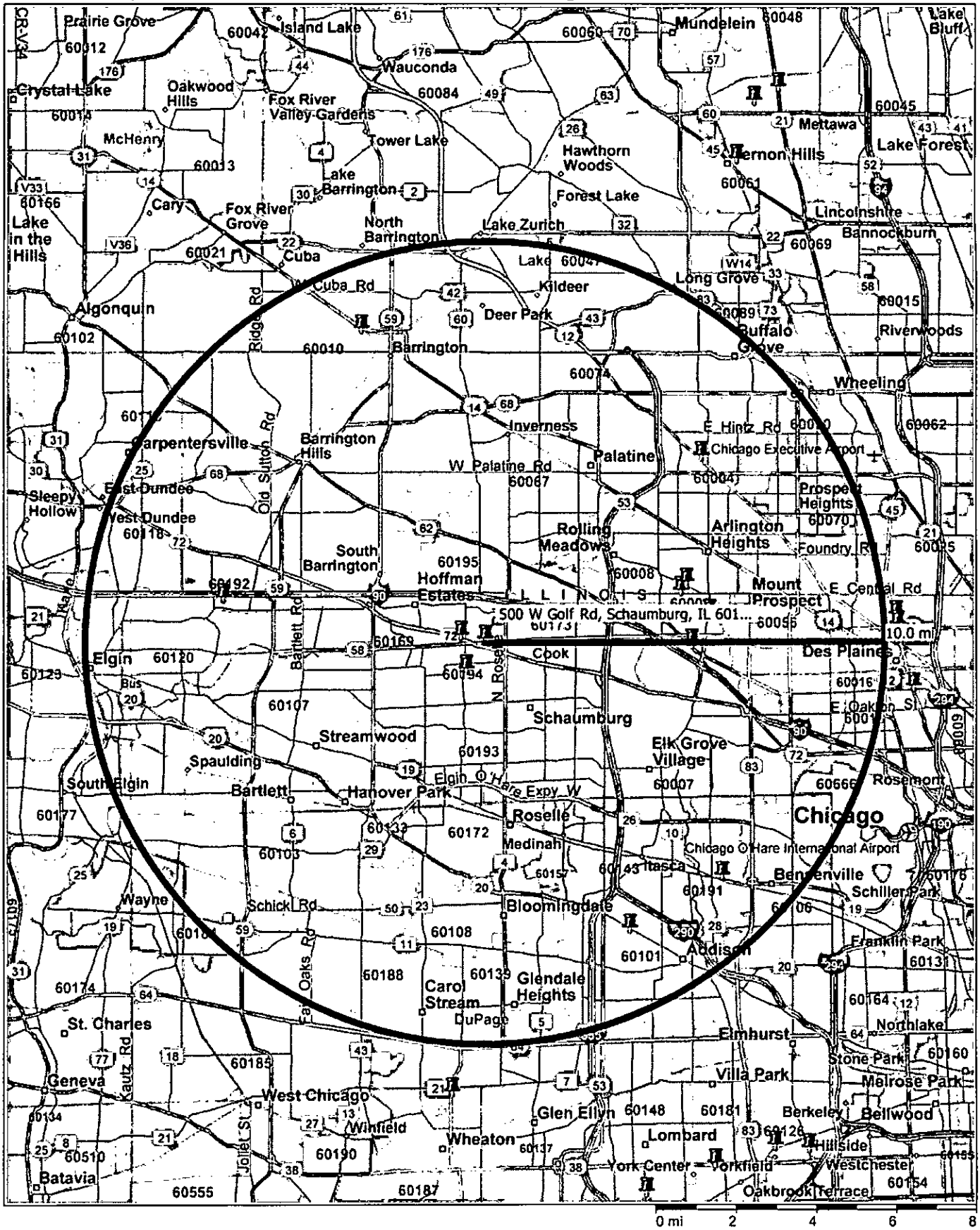
There is no formula need determination for the number of ASTCs and the number of surgical treatment rooms in a geographic service area under the rules established by the HFSRB.

The primary purpose of this project is to provide necessary health care to residents of the geographic service area ("GSA") in which the ASTC will be located. The primary focus of this limited specialty ASTC will be to provide pain management and orthopedic procedures to the residents within the area immediately surrounding the ASTC as evidenced by the list of zip codes of patient served by this practice.

Listed on the following pages, in accordance with 77 Ill. Admin. Code Section 1110.235(c)(2)(8), is the GSA consisting of all zip code areas that are located within a 10 mile radius of the proposed site of the ASTC.

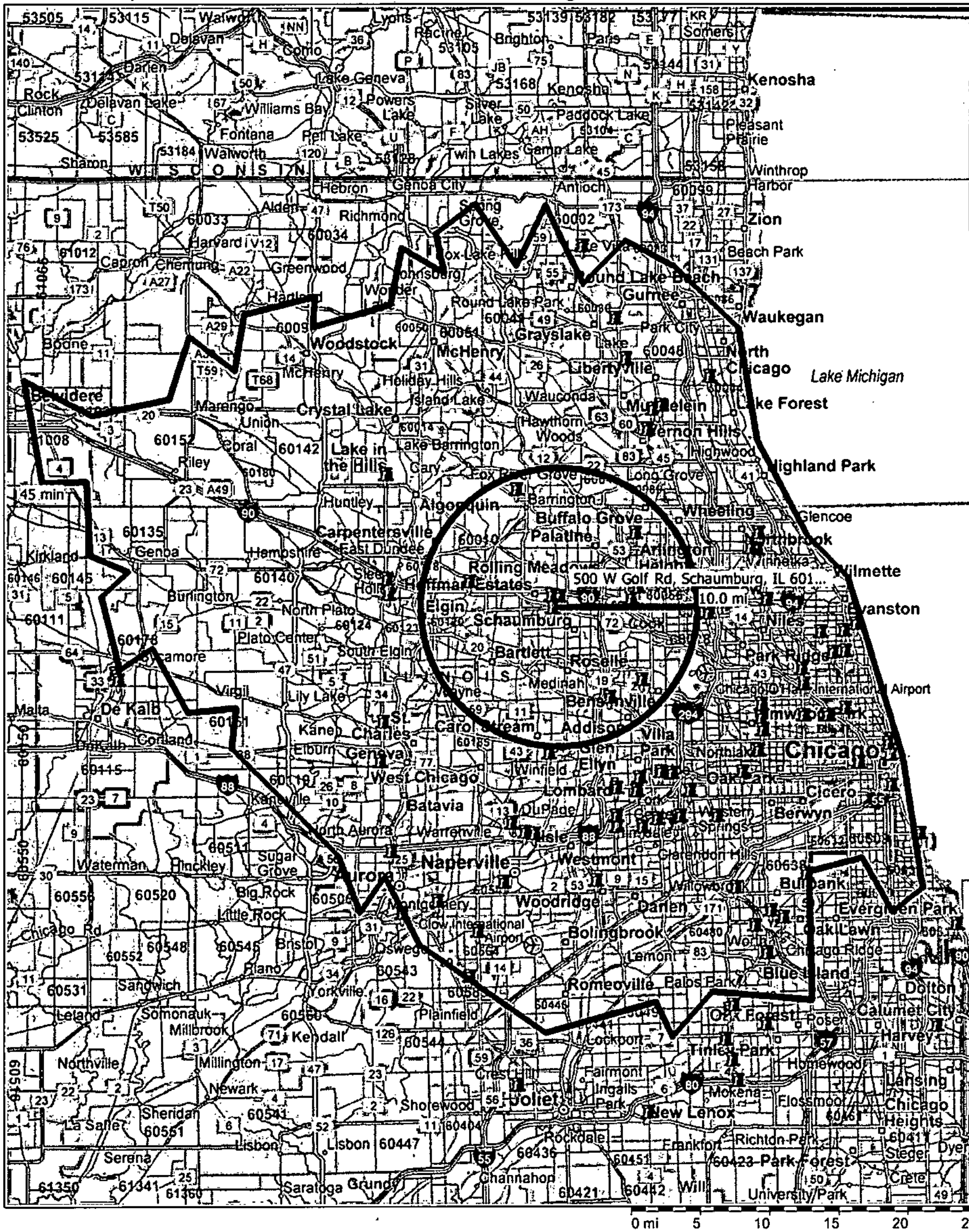
The zip codes and area within a 10 mile radius of the proposed facility is listed below. We have also included the 45 minutes multi-directional travel time (under normal driving conditions) of the proposed site of the ASTC.

Map Point - 500 W Golf Road, Schaumburg 10-Mile and 45-Min ASTCs

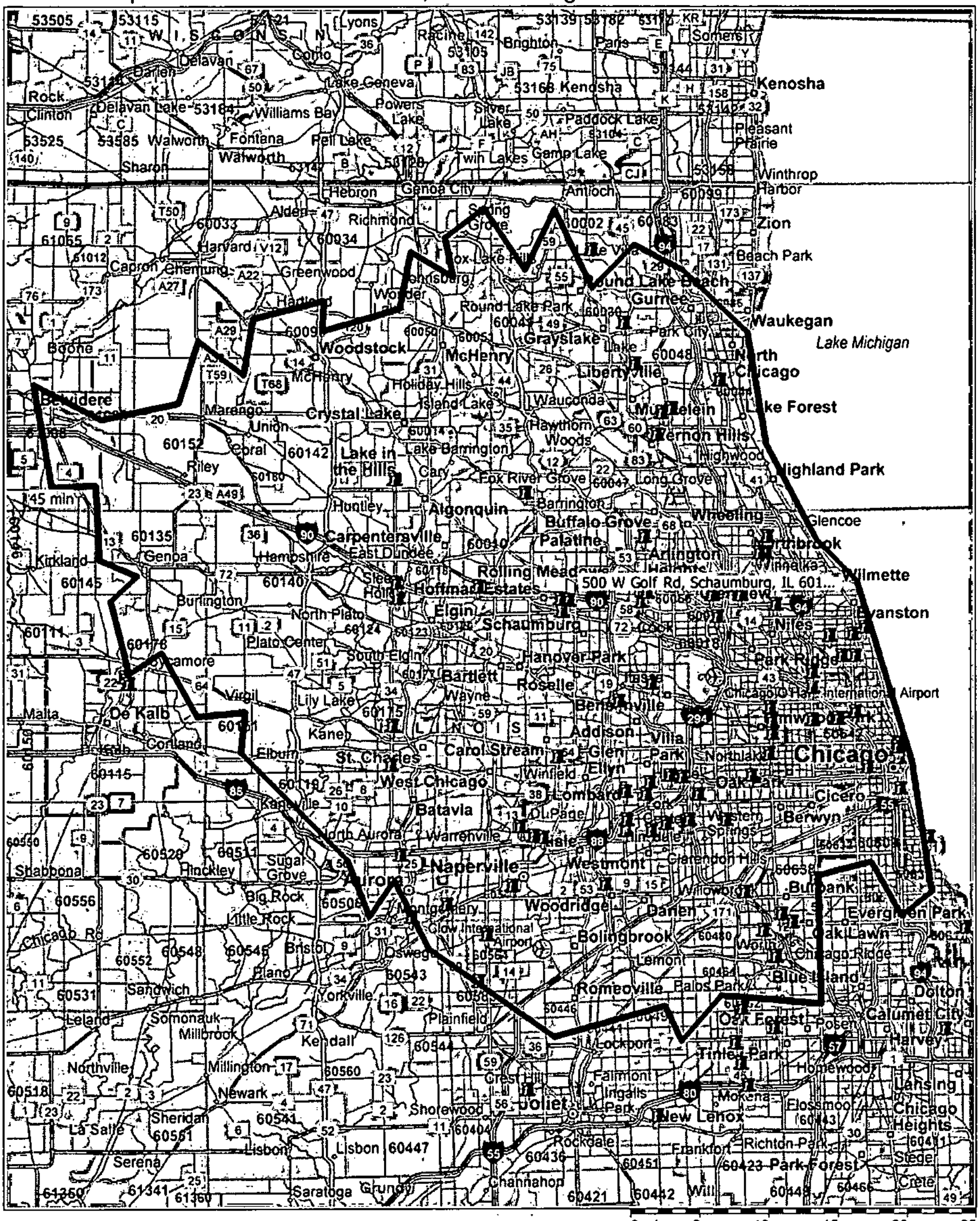


ZIP Code	Population: total (2010) by ZIP Code
60103	41,928
60188	42,656
60139	34,381
60133	38,103
60108	22,735
60172	24,537
60120	50,955
60192	16,343
60107	39,927
60010	44,095
60169	33,847
60195	4,769
60193	39,188
60194	19,777
60067	38,585
60157	2,380
60101	39,119
60191	14,310
60143	10,360
60007	33,820
60106	20,309
60173	12,217
60008	22,717
60005	29,308
60074	38,985
60056	55,219
60070	16,001
60018	30,099
60016	59,690
60004	50,582
60090	37,633

Map Point - 500 W Golf Road, Schaumburg 10-Mile and 45-Min ASTCs



Map Point - 500 W Golf Road, Schaumburg 10-Mile and 45-Min ASTCs



ZIP Code	Country/Region	Population: total (2010) by ZIP Code
60178	United States	21,840
60135	United States	7,248
60506	United States	53,013
60542	United States	17,099
60539	United States	341
60503	United States	16,717
60505	United States	76,573
60502	United States	21,873
60151	United States	4,061
60119	United States	10,371
60140	United States	14,341
60510	United States	28,897
60134	United States	28,565
60175	United States	25,564
60174	United States	30,752
60177	United States	22,659
60124	United States	18,935
60136	United States	7,013
60156	United States	28,987
60123	United States	47,405
60118	United States	15,851
60102	United States	32,193
60110	United States	38,557
60446	United States	39,807
60564	United States	41,312
60504	United States	37,919
60555	United States	13,538
60563	United States	35,922
60540	United States	42,910
60490	United States	20,463
60565	United States	40,524
60440	United States	52,911
60532	United States	27,066
60517	United States	32,038
60515	United States	27,503
60516	United States	29,084
60559	United States	24,852
60439	United States	22,919
60561	United States	23,115
60527	United States	27,486
60514	United States	9,708
60521	United States	17,597
60558	United States	12,960
60185	United States	36,527
60190	United States	10,663
60184	United States	2,448

60103 United States	41,928
60187 United States	29,016
60188 United States	42,656
60139 United States	34,381
60133 United States	38,103
60108 United States	22,735
60172 United States	24,537
60120 United States	50,955
60192 United States	16,343
60107 United States	39,927
60010 United States	44,095
60169 United States	33,847
60195 United States	4,769
60193 United States	39,188
60194 United States	19,777
60067 United States	38,585
60137 United States	37,805
60148 United States	51,468
60157 United States	2,380
60101 United States	39,119
60191 United States	14,310
60143 United States	10,360
60007 United States	33,820
60523 United States	9,890
60181 United States	28,836
60126 United States	46,371
60162 United States	8,111
60163 United States	5,209
60164 United States	22,048
60106 United States	20,309
60173 United States	12,217
60008 United States	22,717
60005 United States	29,308
60074 United States	38,985
60056 United States	55,219
60070 United States	16,001
60018 United States	30,099
60016 United States	59,690
60004 United States	50,582
60089 United States	41,533
60090 United States	37,633
60463 United States	14,671
60445 United States	26,057
60464 United States	9,620
60480 United States	5,246
60465 United States	17,495
60457 United States	14,049

60455 United States	16,446
60525 United States	31,168
60526 United States	13,576
60458 United States	14,428
60501 United States	11,626
60513 United States	19,047
60534 United States	10,649
60482 United States	11,063
60415 United States	14,139
60459 United States	28,929
60803 United States	22,285
60453 United States	56,855
60638 United States	55,026
60402 United States	63,448
60629 United States	113,916
60632 United States	91,326
60621 United States	35,912
60609 United States	64,906
60619 United States	63,825
60637 United States	49,503
60653 United States	29,908
60615 United States	40,603
60154 United States	16,773
60155 United States	7,927
60104 United States	19,038
60165 United States	4,946
60160 United States	25,432
60153 United States	24,106
60141 United States	224
60546 United States	15,668
60130 United States	14,167
60305 United States	11,172
60707 United States	42,920
60131 United States	18,097
60176 United States	11,795
60171 United States	10,246
60634 United States	74,298
60706 United States	23,134
60656 United States	27,613
60631 United States	28,641
60304 United States	17,231
60301 United States	2,539
60302 United States	32,108
60804 United States	84,573
60623 United States	92,108
60644 United States	48,648
60639 United States	90,407

60651	United States	64,267
60624	United States	38,105
60641	United States	71,663
60630	United States	54,093
60646	United States	27,177
60712	United States	12,590
60068	United States	37,475
60714	United States	29,931
60026	United States	13,335
60025	United States	39,105
60015	United States	26,800
60062	United States	39,936
60035	United States	29,763
60053	United States	23,260
60029	United States	482
60093	United States	19,570
60077	United States	26,825
60076	United States	33,415
60203	United States	4,523
60091	United States	27,020
60022	United States	8,153
60608	United States	82,739
60647	United States	87,291
60612	United States	33,472
60622	United States	52,548
60607	United States	23,897
60616	United States	48,433
60614	United States	66,617
60661	United States	7,792
60606	United States	2,308
60654	United States	14,875
60602	United States	1,204
60610	United States	37,726
60618	United States	92,084
60625	United States	78,651
60659	United States	38,104
60645	United States	45,274
60657	United States	65,996
60613	United States	48,281
60640	United States	65,790
60660	United States	42,752
60626	United States	50,139
60605	United States	24,668
60604	United States	570
60603	United States	493
60601	United States	11,110
60611	United States	28,718

60202 United States	31,361
60201 United States	43,125
60043 United States	2,513
60208 United States	1916
60152 United States	12,533
60180 United States	1,694
60142 United States	26,447
60098 United States	32,228
60014 United States	48,550
60012 United States	11,120
60013 United States	26,872
60072 United States	928
60050 United States	31,620
60021 United States	5,545
60042 United States	8,547
60051 United States	25,192
60084 United States	16,771
60073 United States	60,002
60041 United States	9,250
60020 United States	9,825
60046 United States	35,111
60047 United States	41,669
60060 United States	37,189
60030 United States	36,056
60061 United States	25,748
60069 United States	8,384
60048 United States	29,095
60031 United States	37,947
60045 United States	20,925
60040 United States	5,431
60044 United States	9,792
60064 United States	15,407
60088 United States	15,761
60085 United States	71,714

ISI ILLINOIS SPINE INSTITUTE

Babak Lami, M.D.
Carl N. Graf, M.D.
Joseph Brindise, D.O.
Shawn Kumar, M.D.

October 24, 2018

Courtney Avery
Board Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Re: Illinois Spine Institute/ Specialty Surgicare LTD ASTC in Schaumburg, Illinois

Dear Ms. Avery,

I am a spinal surgeon. This letter contains the referral documentation required per Ill. Admin. Code Section 1110.235(c) (3)(A)-(B). Over the past twelve months, I referred or performed a total of 1150 outpatient spinal procedures.

Based on my historical referrals, I anticipate referring 1050 surgical or interventional pain management cases each year to the ASTC proposed by Specialty Surgicare, LTD. I certify that the patients I propose to refer reside within the applicant's proposed geographic service area.

Historical Caseload by Licensed setting:

Name of Healthcare Facility	Type of Healthcare Facility	Number of Cases Referred in the Most Recent 12 month Period
Centegra	Hospital	400
Amita	Hospital	600
Other	Ambulatory surgery centers	150
Total		**1150**

I further certify that the aforementioned referrals have not been used to support another pending or approved certificate of need permit application. The information provided in this letter is true and accurate to the best of my knowledge.

Physician's Signature _____ MD Date October 24, 2018

Babak Lami, MD

Notarization: Signature of Notary:

Subscribed and sworn to before me

Rosella A. Chiodo

this 24th day of October 2018 Seal:

ROSELLA A CHIODO
Official Seal
Notary Public – State of Illinois
My Commission Expires Sep 24, 2021

ILLINOIS SPINE INSTITUTE

Babak Lami, M.D.
Carl N. Graf, M.D.
Joseph Brindise, D.O.
Shawn Kumar, M.D.

October 22, 2018

Courtney Avery
Board Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Re: Illinois Spine Institute/ Specialty Surgicare, LTD ASTC in Schaumburg, Illinois

Dear Ms. Avery,

I am a spinal surgeon. This letter contains the referral documentation required per Ill. Admin. Code Section 1110.235(c) (3)(A)-(B). Over the past twelve months, I referred or performed a total of 1250 outpatient spinal procedures.

Based on my historical referrals, I anticipate referring 1100 surgical or interventional pain management cases each year to the ASTC proposed by Specialty Surgicare, LTD. I certify that the patients I propose to refer reside within the applicant's proposed geographic service area.

Historical Caseload by Licensed setting:

Name of Healthcare Facility	Type of Healthcare Facility	Number of Cases Referred in the Most Recent 12 month Period
Centegra	Hospital	400
Amita	Hospital	300
Other	Ambulatory surgery centers	550
Total		**1250**

I further certify that the aforementioned referrals have not been used to support another pending or approved certificate of need permit application. The information provided in this letter is true and accurate to the best of my knowledge.

Physician's Signature _____ Date 10/22/2018

Carl Graf, M.D.

Notarization:

Signature of Notary: _____

Subscribed and sworn to before me

Rosella A. Chiodo

this 22ND day of October 2018

Seal:

ROSELLA A CHIODO
Official Seal
Notary Public – State of Illinois
My Commission Expires Sep 24, 2021

October 24, 2018

Courtney Avery
Board Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Re: Illinois Spine Institute/ Specialty Surgicare, LTD ASTC in Schaumburg, Illinois

Dear Ms. Avery,

I am a neurosurgeon. This letter contains the referral documentation required per Ill. Admin. Code Section 1110.235(c)(3)(A)-(B). Over the past twelve months, I referred over 300 outpatient spinal procedures.

Based on my historical referrals, I anticipate referring 160 outpatient interventional pain management cases each year to the ASTC proposed by Specialty Surgicare, LTD. I certify that the patients I propose to refer reside within the applicant's proposed geographic service area.

Historical Caseload by Licensed setting:

Name of Healthcare Facility	Type of Healthcare Facility	Number of Cases Referred in the Most Recent 12 month Period
Centegra	Hospital	300
Total		**300**

I further certify that the aforementioned referrals have not been used to support another pending or approved certificate of need permit application. The information provided in this letter is true and accurate to the best of my knowledge.

Physician's Signature _____ Date 10/24/18

Antonio Yuk, MD

Notarization:

Signature of Notary: _____

Subscribed and sworn to before me

Rosella A. Chiodo

this 24th day of October 2018

Seal:

ROSELLA A CHIODO
Official Seal
Notary Public - State of Illinois
My Commission Expires Sep 24, 2021

October 22, 2018

Courtney Avery
Board Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Re: Illinois Spine Institute ASTC in Schaumburg, Illinois

Dear Ms. Avery,

I am a neurosurgeon. This letter contains the referral documentation required per Ill. Admin. Code Section 1110.235(c)(3)(A)-(B). Over the past twelve months, I refer or perform over 300 outpatient spinal procedures.

Based on my historical referrals, I anticipate referring 150 surgical or interventional pain management cases each year to the ASTC proposed by Specialty Surgicare, LTD. I certify that the patients I propose to refer reside within the applicant's proposed geographic service area.

Historical Caseload by Licensed setting.

Name of Healthcare Facility	Type of Healthcare Facility	Number of Cases Referred in the Most Recent 12 month Period
Centegra Health	Hospital	130
Saint Alexius Hospital	Hospital	120
Sherman Hospital	Hospital	30
Northwest Community Hospital	Hospital	20
Total		**300**

I further certify that the aforementioned referrals have not been used to support another pending or approved certificate of need permit application. The information provided in this letter is true and accurate to the best of my knowledge.

Physician's Signature _____ Date 10/22/18

(Please Print/Type Name) KANU PANCHAL MD FACS

Notarization:
Subscribed and sworn to before me

Signature of Notary:

this 22 day of October, 2018

Seal:

TRACY L FLATHAU
Official Seal
Notary Public - State of Illinois
My Commission Expires Mar 23, 2020

October 22, 2018

Courtney Avery
Board Administrator
Health Facilities and Services Review Board
Illinois Department of Public Health
525 West Jefferson Street, Second Floor
Springfield, Illinois 62761

Re: Illinois Spine Institute/Specialty Surgicare, LTD ASTC in Schaumburg, Illinois

Dear Ms. Avery,

I am an orthopedic surgeon. This letter contains the referral documentation required per Ill. Admin. Code Section 1110.235(c)(3)(A)-(B). Over the past twelve months, I referred over 200 outpatient spine surgical or interventional pain management procedures.

Based on my historical referrals, I anticipate referring 100 surgical or interventional pain management cases each year to the ASTC proposed by Specialty Surgicare, LTD. I certify that the patients I propose to refer reside within the applicant's proposed geographic service area.

Historical Caseload by Licensed setting:

Name of Healthcare Facility	Type of Healthcare Facility	Number of Cases Referred in the Most Recent 12 month Period
Centegra	Hospital	100
Mercy	Hospital	100
Total		**200**

I further certify that the aforementioned referrals have not been used to support another pending or approved certificate of need permit application. The information provided in this letter is true and accurate to the best of my knowledge.

Physician's Signature _____ Date 10/23/18

Dana Tarandy, M.D.

Notarization: Signature of Notary: _____

Subscribed and sworn to before me

Rosella A. Chiodo

this 23rd day of October 2018 Seal:

ROSELLA A CHIODO
Official Seal
Notary Public – State of Illinois
My Commission Expires Sep 24, 2021

1110.235(c)(5) – Treatment Room Need Assessment

UTILIZATION					
	DEPT./ SERVICE	HISTORICAL UTILIZATION (PATIENT DAYS) (TREATMENTS) ETC.	PROJECTED UTILIZATION	STATE STANDARD	MEET STANDARD?
YEAR 1	ASTC	1080	89%	>1500	YES
YEAR 2	ASTC	1134	93%	>1500	YES

The number of 1080 predicted procedures are derived from patients and procedures envisioned emanating directly from current patients and from the 5 referral letters included in this application. The referral letters reflect proposed referrals to this facility over the first two years of its operation. The average procedure time of 107 minutes was derived from evaluating already maintained documentation (included in this application) tracking patient procedures. With an envisioned 270 days open to perform procedures and 8 hours each date, the resulting 1080 procedures would result in 1,922 hours or 89% of the available 2019 hours the surgical suite could be utilized. In year 2 the resulting 1134 procedures would result in 2018 hours or 93% of the available hours the surgical suite could be utilized.

Utlization Calculation	
Operational Days	270
Average Hours of Operation	8
Procedure Hours per OR	2160
Number of OR	1
Total Procedure Hours	2160
Average Procedure Time (hours)	1.78
2018 Predicted Procedures	1080
2018 Utlization	0.89
2019 Predicted Procedures	1134
2019 Utlization	0.9345

Doctor Name	Historical Referrals	Proposed Referrals over 2019 and 2020	Proposed Referrals 2019	Proposed Referrals 2020- 5% increase
Lami	1150	1050	525	551.25
Graf	1250	700	350	367.5
Panchal	300	150	75	78.75
Tarandy	200	100	50	52.5
Yuk	300	160	80	84
Total	**3200**	**2160**	**1080**	**1134**

ILLINOIS SPINE INSTITUTE PROCEDURE TIME IN MINUTES

Procedure	Set-up /Anesthesia Assement/Preparations	Procedure Length	Clean Up	Total Case Time
Micro-discetomy	30	120	20	170
Laminectomy 1 level	30	120	20	170
Lumbar inter-laminar injection	15	20	20	55
LTFES injection 1 level	15	20	20	55
LTFES injection 2 level2	15	20	20	55
CESI injection	15	20	20	55
Discography	30	90	20	140
MBB	15	20	20	55
Rhizotomy	20	45	20	85
Spinal Cord Stimulator Trial	30	90	20	140
Spinal Cord Stimulator Implant	30	150	20	200

	Average Time
Check in to procedure	22.3
Procedure time	65.0
Turn Over time	20.0
Total Procedure time	107.3

1110.235(c)(6) – Service Accessibility

We are acutely aware that this application will receive a negative finding on the criteria of service accessibility because there are other surgery centers that exist within the identified GSA that are not meeting the established utilization targets reflected in the Board's rules. As this Board knows all too well this is a common challenge for virtually all ASTC applications regardless of the categories of service offered by the proposed facility.

This application is like others that have recently been before this Board, in that it has a defined patient population and the dedication of the facility to the limited specialties of pain management and orthopedics. As discussed in the alternatives section, these patients require regular access to care that is necessary to sustain their ability to lead regular lives free of chronic pain. Being dependent on either a hospital or another facility dedicated to a larger variety of procedures creates a barrier to the prompt and efficient care that patients deserve. Those barriers include incredibly inconvenient procedure times, rescheduling, and being "bumped" from the schedule altogether in favor of higher reimbursable procedures.

The fundaments changes by CMS to the reimbursement rates for these procedures has compelled a restructuring of this aspect of care. We truly believe that to meaningfully assess this issue requires going beyond the numbers to determine whether or not these services are truly needed within the community and whether those needs can practically and principally be met by existing facilities.

We therefore, ask the members of the Board to look past the question of whether or not capacity exists at other facilities and to evaluate the core question of whether there is a need for this project, and whether or not it will increase access to necessary care for a patient population identified in this application. We are confident that the answer to these questions is yes, this project warrants your approval.

Name	Address	City	State	Zip	# of Operating / Procedure	Distance from Proposed Facility (in minutes)
Ashton Center for Day Surgery	1800 McDonough Road	Hoffman Estates	IL	60192	5	12
The Hoffman Estates Surgery Center	1595 North Barrington Road	Hoffman Estates	IL	60194	4	6
Schaumburg Surgery Center	929 West Higgins Road	Schaumburg	IL	60195	2	3
Barrington Pain and Spine Institute	600 Hart Road	Barrington	IL	60010	3	22
Aiden Center for Day Surgery	1580 WEST LAKE STREET	ADDISON	IL	60101	4	18
Advantage Health Care	203 EAST IRVING PARK ROAD	WOOD DALE	IL	60191	2	19
Illinois Hand & Upper Extremity Center	515 West Algonquin Road	Arlington Heights	IL	60005	1	13
Northwest Surgicare Healthsouth	1100 WEST CENTRAL ROAD	ARLINGTON HEIGHTS	IL	60005	4	18
Northwest Community Day Surgery	675 WEST KIRCHOFF ROAD	ARLINGTON HEIGHTS	IL	60005	9	17
Northwest Endoscopy Center	1415 South Arlington Heights Road	Arlington Heights	IL	60005	2	14
Chicago Surgical Clinic, Ltd.	129 West Rand Road	Arlington Heights	IL	60005	2	20

ASTC Facilities within a 10 Mile Radius

Name	Address	City	Zip	# of Operating / Procedure Rooms	Distance from Proposed Facility (in minutes)
Castle Surgicenter	2111 OGDEN AVENUE	AURORA	60504	2	54
Dreyer Ambulatory Surgery Center	1221 NORTH HIGHLAND AVENUE	AURORA	60506	4	48
Fox Valley Orthopaedic Associates	2525 KANEVILLE ROAD	GENEVA	60134	2	43
Valley Ambulatory Surgery Center	2210 DEAN STREET	St. Charles	60175	7	38
Elgin Gastroenterology Endoscopy Center	745 Fletcher Drive	Elgin	60123	2	20
Advocate Sherman ASTC	1445 North Randall Road	Elgin		3	20
Algonquin Road Surgery Center	2550 ALGONQUIN ROAD	LAKE IN THE HILLS	60156	3	26
DMG Pain Management Surgery Center, LLC	2490 Rollingridge, Suite 200	Naperville	60564	2	26
Midwest Endoscopy Center	1243 Rickert Drive	NAPERVILLE	60540	2	41
Naperville Surgical Centre	1263 RICKERT DRIVE	NAPERVILLE	60540	3	43
Cadence Ambulatory Surgery Center	27650 Ferry Road	Warrenville	60565	2	43
The Center for Surgery	475 EAST DIEHL ROAD	NAPERVILLE	60563	8	38
Naperville Fertility Center	1175 East Diehl Road	Naperville	60540	1	38
DuPage Vascular Care	7425 Janes Avenue	Woodridge			38
Ambulatory Surgicenter of Downers Grove	4333 MAIN STREET	DOWNERS GROVE	60515	3	27
Midwest Center for Day Surgery	3811 HIGHLAND AVENUE	DOWNERS GROVE	60515	5	28
Salt Creek Surgery Center	530 NORTH CASS AVENUE	WESTMONT	60559	4	31
Chicago Prostate Cancer Surgery Center	815 PASQUINELLI DRIVE	WESTMONT	60559	2	41
Rush Oak Brook Surgery Center	2011 York Road	Oak Brook	60521	6	26
Eye Surgery Center of Hinsdale	950 North York Road	Hinsdale	60521	2	27
Hinsdale Surgical Center	12 Salt Creek Drive	HINSDALE	60521	4	26
DuPage Eye Surgery Center	2015 North Main Street	Wheaton	60187	3	31
Ashton Center for Day Surgery	1800 McDonough Road	Hoffman Estates	60192	5	13
The Hoffman Estates Surgery Center	1595 North Barrington Road	Hoffman Estates	60194	4	6
Schaumburg Surgery Center	929 West Higgins Road	Schaumburg	60195	2	2
Barrington Pain and Spine Institute	600 Hart Road	Barrington	60010	3	19
DuPage Medical Group Surgery Center	1801 South Highland	Lombard	60148	5	25
Oak Brook Surgical Centre	2425 WEST 22ND STREET	Oak Brook	60523	4	24
Aiden Center for Day Surgery	1580 WEST LAKE STREET	ADDISON	60101	4	15

ASTC Facilities within 45 Minutes

Loyola Ambulatory Surgery Center at Oakbrook	1650 South Ardmore Avenue	Villa Park	60181	3	21
Elmhurst Foot & Ankle	340 WEST BUTTERFIELD ROAD	ELMHURST	60148	1	23
Elmhurst Outpatient Surgery Center	1200 SOUTH YORK ROAD	ELMHURST	60126	4	27
Children's Outpatient Services at Westchester	2301 ENTERPRISE DRIVE	WESTCHESTER	60154	3	25
Advantage Health Care	203 EAST IRVING PARK ROAD	WOOD DALE	60191	2	21
Illinois Hand & Upper Extremity Center	515 West Algonquin Road	Arlington Heights	60005	1	12
Northwest Surgicare Healthsouth	1100 WEST CENTRAL ROAD	ARLINGTON HEIGHT	60005	4	14
Northwest Community Day Surgery	675 WEST KIRCHOFF ROAD	ARLINGTON HEIGHT	60005	9	15
Northwest Endoscopy Center	1415 South Arlington Heights Road	Arlington Heights	60005	2	13
Chicago Surgical Clinic, Ltd.	129 West Rand Road	Arlington Heights	60005	2	19
Palos Hills Surgery Center	10330 South Roberts Road	Palos Hills	60465	2	39
Forest Medical-Surgical Center	9050 West 81st Street	Justice	60458	2	37
United Urology Center LaGrange	120 North LaGrange Road	LaGrange	60525	1	31
Palos Surgicenter	7340 WEST COLLEGE DRIVE	PALOS HEIGHTS	60463	4	43
Novamed Center for Reconstructive Surgery	6309 WEST 95TH STREET	OAK LAWN	60453	2	47
Oak Lawn Endoscopy Center	9921 SOUTHWEST HIGHWAY	OAK LAWN	60453	2	40
Southwestern Medical Center	7456 South State Road	BEDFORD PARK	60638	3	46
Loyola University Ambulatory Surgery Center	2160 SOUTH FIRST AVENUE	MAYWOOD	60153	6	30
Novamed Surgery Center of River Forest	7427 WEST LAKE STREET	River Forest	60305	2	39
Elmwood Park Same Day Surgery Center	1614 NORTH HARLEM AVENUE	ELMWOOD PARK	60707	3	38
Advanced Ambulatory Surgical Center	2333 NORTH HARLEM AVENUE	CHICAGO	60707	3	33
Belont/Harlem Surgery Center	3101 NORTH HARLEM AVENUE	CHICAGO	60634	4	30
Fullerton Surgery Center	4849 West Fullerton	Chicago	60639	3	30
Six Corners Same Day Surgery	4211 NORTH CICERO AVENUE	CHICAGO	60647	4	27
Hispanic-American Endoscopy Center	3536 West Fullerton	Chicago	60647	1	27
Albany Medical Surgical Center	5086 NORTH ELSTON AVENUE	CHICAGO	60630	2	25
Apollo Surgical Center	2750 South River Road	Des Plaines	60016	2	19
Regenerative Surgery Center	1455 EAST GOLF ROAD	DES PLAINES	60016	1	24
Golf Surgical Center	8901 WEST GOLF ROAD	DES PLAINES	60016	5	28
Presence Lakeshore Gastroenterology	150 North River Road	Des Plaines	60016	2	24
The Glen Endoscopy Center	2551 COMPASS ROAD	GLENVIEW	60026	2	30
Ravine Way Surgery Center	2350 Ravine Way	Glenview	60025	3	31
Illinois Sports Medicine & Orthopedic Surgery Cen	9000 Waukegan Road	Morton Grove	60053	4	28
North Shore Surgical Center	3725 West Touhy Avenue	Lincolnwood	60712	2	35

Rush Surgicenter - Professsional Building	1725 WEST HARRISON	CHICAGO	60612	4	38
25 East Same Day Surgery	25 EAST WASHINGTON	CHICAGO	60602	4	40
Grand Avenue Surgical Center	15 WEST GRAND AVENUE	CHICAGO	60610	5	40
River North Same Day Surgery Center	ONE EAST ERIE STREET	CHICAGO	60611	4	40
Fullerton Kimball Medical & Surgical Center	3412 WEST FULLERTON	CHICAGO	60647	2	40
Western Diversey Surgical Center	2744 NORTH WESTERN AVENUE	Chicago	60647	2	31
Novamed Surgery Center of Chicago Northshore	3034 WEST PETERSON	CHICAGO	60659	1	31
Peterson Medical Surgicenter	2300 West Peterson Avenue	Chicago	60659	2	42
South Loop Endoscopy & Wellness Center	2336 South Wabash	Chicago	60616	1	39
The Surgery Center at 900 North Michigan Avenu	60 EAST DELAWARE	CHICAGO	60611	4	41
Gold Coast Surgicenter	845 NORTH MICHIGAN AVENUE	CHICAGO	60611	2	42
Lakeshore Surgery Center	7200 NORTH WESTERN AVENUE	CHICAGO	60645	2	42
Rogers Park One Day Surgery Center	7616 NORTH PAULINA	CHICAGO	60626	2	42
Winchester Endoscopy Center	1870 Winchester Road	Libertyville	60048	2	42
Northwestern Grayslake Ambulatory Surgery Cen	1475 EAST BELVIDERE ROAD	GRAYSLAKE	60030	4	46
Northwestern Grayslake Endoscopy Center	1475 East Belvidere Road	Grayslake	60030	2	46
Hawthorne Place Outpatient Surgery Center	Center Drive and Lakeview Parkway	Vernon Hills	60061	3	35
Vernon Square Surgicenter	230 Center Drive	VERNON HILLS	60061	2	36
Advocate Condell Ambulatory Surgical Treatment	825 South Milwaukee	Libertyville	60048	2	44
North Shore Endoscopy Center	988 Carriage Park Avenue	LAKE BLUFF	60144	2	44

1110.235(c)(7)(A)(B)(C) – Unnecessary Duplication/ Maldistribution/ Impact to Area Providers

As is evidenced by the support for this application and scholarly articles on the subject of outpatient spine and pain care, there is an increasing need for these services around the country and Illinois specifically. Patients who require regular injections for chronic pain conditions, coupled with the newly available outpatient spine procedures provides a strong basis to approve this project. The attached articles included in this application show that the need for access to this care is of fundamental importance. Additionally, this Board has recently seen other applications filed for ASTCs that are dedicated to offering these specific categories of service to their existing patient base. Clearly, the need for access to this type of care continues to rise.

Give the importance of these procedures for this vulnerable patient population, the underlying question for the Board is whether or not they believe existing facilities have the capability to meet the needs of these patients. The answer is no, they do not. As discussed in the Alternatives section, hospital and existing facilities have already proven to be unable to meet the needs of these patients as it is not economically feasible for them to serve these patients, In many cases this is the result of the patient population being a high Medicaid and Medicare population, the procedures being lower reimbursed procedures than other sub-specialties, and as a result patients are being "bumped" for more profitable procedures.

Performing these procedures in an ASTC setting is far more cost effective option when compared to a hospital surgical suite. Given the mission of the Board to increase access to care, and contain costs this project is the embodiment of that mission. Accordingly, we believe this planning area and patients would best be served by asking the Board to look past the question of existing capacity. Instead, we ask that they look to what types of procedures existing facilities are performing and ask themselves whether or not this project will increase access to necessary care for a vulnerable patient population. We strongly believe the answer to these questions is yes.

The likelihood for mal-distribution is minimal and given the dedicated patient population this also greatly diminishes any impact to area providers.

1110.235(c)(8) – Staffing

The facility will appoint Dr. Babak Lami (Board Certified Orthopaedic Spinal Surgeon) to act in the capacity of medical director for the facility.

The staffing of the facility will consist of already employed individuals and includes the following positions:

- 4 Registered Nurses (already employed)
- 1 Medical Director (already employed)
- 3 Physicians/Surgeons (already employed)
- 1 Facility Manager (already employed)
- 1 Administrative Staff (already employed)

As needed, additional staff will be identified and employed utilizing existing job search sites and professional placement services.

77 Ill. Admin. Code 1110.235(c)(9) – Charge Commitment

Below is a list of the procedures and charges that will be offered at the ASTC is below. Illinois Spine Institute verifies it will adhere to these charges for a minimum of 24 months.

CPT CODE	DESCRIPTION	FEE
	Pain Management	
64510	N BLOCK,STELLATE GANGLION	$2,886.11
64520	N BLOCK, LUMBAR/THORACIC	$2,978.97
64633	RFTC; Cervical or Thoracic single facet joint (*includes fluoroscopy*)	$6,147.63
64635	RFTC; lumbar or sacral single facet joint (*includes fluoroscopy)*	$6,044.64
64640	DESTRUCTION BY NEUROLYTIC AGENT; OTHER PERIPHERAL NERVE/BRANCH	$2,393.85
72275	EPIDUROGRAPHY, RADIOLOGICAL S&I	$777.81
72295	DISCOGRAPY, LUMBAR SPINE	$1,330.11
77002	Fluoroscopic guidance for needle placement	$443.48
77003	Fluoroscopic guidance and localization SPINAL	$437.34
76942	Ultrasonic guidance for needle placement	$632.81
64415	INJECTION; NERVE BLOCK, BRACIAL PLEXUS, SINGLE	$1,483.37
64421	INJECTION; NERVE BLOCK,INTERCOSTAL	$2,715.38
64425	INJECTION; NERVE BLOCK,ILIOINGUINAL/ILIOHYPOGASTRIC NERVE	$1,192.31
64450	INJECTION; NERVE BLOCK,OTHER PERIPHERAL NERVE	$1,011.82
64479	INJECTION; TRANSFORAMINAL EPIDURAL CERV/THORACIC	$2,895.66
64483	INJECTION TRANSFORAMINAL EPIDURAL LUMBAR SINGLE LEVEL	$2,862.73
64484	INJECTION TRANSFORAMINAL EPIDURAL EACH ADDITONAL LEVEL	$5,814.50
64490	Facet/MBB; Cervical/Thoracic single level (*includes fluoroscopy*)	$792.35

64493	Facet/MBB; lumbar or sacaral; single level (*includes fluoroscopy*)	$6,057.18
62290	INJECTION; DISCOGRAM, LUMBAR, EACH LEVEL	$998.58
62321	INJECTION; W/WO CONTRAST EPIDURAL; CERVICAL/THORACIC	$5,340.16
62323	INJECTION; W/WO CONTRAST EPIDURAL; LUMBAR	$5,312.95
27096	INJECTION SACROILIAC JOINT	$8,649.15
20550	INJ SINGLE TENDON SHEATH/LIGAMENT	$207.71
20552	INJ TRIGGER POINT(S), 1-2 MUSCLES	$286.71
20553	INJ TRIGGER POINT(S), 3 OR MORE MUSCLES	$332.61
20600	DRAIN/INJECT, SMALL JOINT/BURSA	$184.47
20605	DRAIN/INJ INTERMEDIATE JOINT/BURSA	$304.24
20610	DRAIN/INJ, MAJOR JOINT/BURSA	$944.28
63685	INSERTION/REPLACEMENT SPINAL CORD STIMULATION	$58,587.84
63650	PERCUTANEOUS IMPLANTATION SPINAL CORD STIMULATION	$25,302.78
	Orthopedic	
20680	REMOVAL OF SUPPORT IMPLANT - WIRE, PIN, SCREW	$1,666.58
20930	SPINE BONE ALLOGRAFT MORSEL	$0.00
20931	SPINE BONE ALLOGRAFT STRUCTURAL	$984.81
20936	SPINE BONE ALLOGRAFT STRUCTURAL	$1,026.50
22214	REVISION OF LUMBAR SPINE	$0.00
22513	AUTOGRAFT FOR SPINE SURGERY	$26,136.00
22514	THORACIC KYPHOPLASTY/VERTEBROPLASTY	$62,577.31
22515	LUMBAR KYPHOPLASTY/VERTEBROPLASTY	$62,437.23
22551	ANTERIOR CERVICAL FUSION	$72,717.40
22600	ARTHRDOSIS 1 LEVEL CERV BELOW C2	$3,260.96
22610	POSTERIOR 1 LEVEL, CERVICAL BELOW C2	$10,614.12
22612	POSTERIOR 1 LEVEL LUMBAR	$23,944.57

22630	POSTERIOR INTERBODY, 1 INTERSPACE, LUMBAR	$3,713.63
22633	COMBINED POST/POST LAT, LUMBAR	$3,501.15
22840	POSTERIOR NON SEGMENTA INSTRUMENTATION	$13,058.96
22842	POSTERIOR INSTRUMENTATION, RODS, HOOKS, WIRES	$7,630.10
22845	ANTERIOR INSTRUMENTATION, 2-3 SEGMENTS	$9,021.23
22846	ANTERIOR INSTRUMENTATION, 4-7 SEGMENTS	$7,905.90
22850	REMOVAL OF POSTERIOR NONSEGMENTAL INSTRUMENTATION	$9,536.16
22855	REMOVE SPINE FIXATION DEVICE	$5,437.32
27280	ARTHRODESIS, OPEN, SACROILIAC JOINT	$6,883.53
63001	REMOVAL OF ANTERIOR INSTRUMENTATION	$19,183.21
63003	ARTHRODESIS, OPEN, SACROILIAC JOINT	$21,766.81
63005	REMOVAL OF SPINAL LAMINA; CERVICAL	$21,661.57
63011	REMOVAL OF SPINAL LAMINA; THORACIC	$22,600.51
63012	LAMINECTOMY , LUBAR (GILL TYPE)	$23,739.62
63015	LAMINECTOMY, CERVICAL	$24,972.04
63016	LAMINECTOMY, THORACIC	$22,905.85
63017	LAMINECTOMY, LUMBAR	$25,615.79
63020	LAMINOTOMY W/DECOMPRESSION; 1 INTERSPACE, CERVICAL	$25,079.75
63030	LAMINECTOMY, LUMBAR	$23,591.32
63040	LAMINOTOMY , SINGLE CERVICAL	$23,324.71
63042	LAMINOTOMY revision, SINGLE LUMBAR	$24,022.57
63045	LAMINOTOMY, SINGLE CERVICAL	$24,214.93
63046	LAMINOTOMY, THORACIC	$23,792.30
63047	LAMINECTOMY W/ DECOMPRESSION; LUMBAR	$24,315.43
63048	LAMENECTOMY W/ DECOMPRESSION; THORACIC	$24,146.38
22853	LAMINECTOMY W/DECOMPRESSION; LUMBAR	$3,655.62

Specialty SurgiCare, LTD

500 West Golf Road, Schaumburg, IL 60195

October 18, 2018

Courtney Avery
Board Administrator
Illinois Health Facilities and Services Review Board
525 West Jefferson Street, Second Floor
Springfield, Illinois 62791

RE: Assurance, 77 Ill. Admin. Code 1110.235 (c)(10)(A)-(B)

Dear Ms. Avery,

Pursuant to 77 Ill. Admin. Code 1110.235(c)(10)(A)-(B), on behalf of Specialty Surgicare, LTD., I hereby attest, in accordance with the provisions of 735 ILCS 5/1-109, that it will implement a peer review program to evaluate whether patient outcomes are consistent with quality standards as established by the relevant professional organizations. In the unlikely event that the outcomes being experienced do not meet or exceed those standards, an appropriate quality improvement plan will be initiated.

On behalf of the Applicant, I hereby attest that, in the second year of operation after the project completion date, the annual utilization standard for ASTCs is expected to meet or exceed the utilization standard specified in our application. Documentation to support this certification is provided in our application in Attachment 25.

Sincerely,

MD

Babak Lami, M.D.
Specialty Surgicare, LTD.

77 Ill. Admin. Code Section 1130.120- Availability of Funds

This project will be funded entirely with cash from internal sources.

The only costs related to this project are the lease of the real property, lease of the necessary equipment, and initial startup costs related to various consultants. Those costs have all been outlined and incorporated within this CON application. The cash necessary to cover the fiver-year term of the lease has been evidenced by presentation of the attached affidavit verifying that these funds are explicitly available and dedicated to the establishment of this ASTC, if approved by the HFSRB.

OFFICE LEASE

This Lease Agreement is made and entered into by and between **UNCUS, LLC**, 117 South Cook Street, # 206, Barrington, Illinois, 60010 (Landlord) and **ILLINOIS SPINE INSTITUTE, SC,** 500 West Golf Road, Schaumburg, Illinois, 60195 (Tenant). Landlord hereby leases to Tenant and Tenant hereby leases from Landlord that certain property, with the improvements thereon, containing approximately 11,125 square feet, Exhibit *"A"* attached, or 100% of the total building improvements, hereinafter called the "leased premises", commonly known as 500 West Golf Road, Schaumburg, Illinois, 60195.

The primary term of this lease shall be eight (8) years commencing on the first day of January 1, 2018 and ending on the 30th day of January, 2026, subject to automatic extension as hereinafter provided, upon the following terms, conditions and covenants.

I. RENT. Tenant agrees to and shall pay Landlord at 117 South Cook Street, # 206, Barrington, Illinois, 60010 or at such other place Landlord shall designate from time to time in writing, as rent for the leased premises payable without demand as follows: Months 1 through 12, the sum of $23,000.00 per month. Each such payment of rent shall be paid in advance on or before the first day of each month commencing on January 1, 2018 Rent received after the fifteenth day of the month shall be deemed delinquent. If rent is not received by Landlord by the 15th day of each month, Tenant shall pay a late charge of five (5%) percent of the amount due.

Subsequent to the first twelve (12) months, the amount of the rental to be paid each month shall be as follows:

a. Second year, January 1, 2019 to December 31, 2019, rent at $23,690 per month;

b. Third year, January 1, 2020 to December 31, 2020, rent payable at $24,400 per month;

c. Fourth year, January 1, 2021 to December 31, 2021, rent payable at $25,132 per month;

d. Fifth year, January 1, 2022 to December 31, 2022, rent payable at $25,886 per month;

e. Sixth year, January 1, 2023 to December 31, 2023, rent payable at $26,663per month;

f. Seventh year, January 1, 2024 to December 31, 2024, rent payable at $27,463per month;

g. Eight year, January 1, 2025 to December 31, 2025, rent payable at $28,287 per month;

II. ADDITIONAL RENT-TAXES AND OPERATING EXPENSE. It is understood that the Base Rent does not include the cost of Taxes on the Building or on the Land underlying the Building or the cost of operating and maintaining the Building. Therefore, in order that the rental payable under this Lease shall reflect any such cost, Tenant agrees to pay Additional Rent computed as set forth below.

A. Tenant agrees to pay as Additional Rent, based on the percentage of the rented space, for each calendar year during the Term including any extensions or renewals thereof, Taxes (defined below) assessed or incurred, regardless of when such Taxes are payable.

B. Tenant agrees to pay all operating cost corresponding to the percentage of the rented space. As used in this Lease, the term "Operating Expenses" means all costs of ownership, operation, and maintenance of the Building, as determined by standard accounting principles, and shall include the following by way of illustration and not limitation: heat, water, electricity and other utility charges; insurance premiums, licenses, permit and inspection fees; and the cost of all labor, contracted or otherwise, materials, snow and refuse removal and other services paid or incurred by Landlord in the operation and maintenance of the common area of the Building, including the costs of Building security, during the Lease Term. Operating Expenses shall not include (i) utilities provided to and directly paid for by Tenant, (ii) any principal payments or interest expense on any loans secured by mortgages placed on the Building and underlying Land, or ground rent; (iii) the cost of any work or service performed in any instance for any tenant (including Tenant) at the cost of that tenant; or (iv) any cost for which Landlord has received direct reimbursement other than by payment of Base Rent or of Tax and Operating Expense payments under clauses similar to this paragraph.

C As used in this Lease, the term "Taxes" mean all federal, state and local governmental taxes, assessments, and charges (including transit or transit district taxes or assessments), general real estate taxes, assessments (whether they be general or special), sewer rents, rates, and charges, taxes based on leases or the receipt of rent, ad valorem taxes, and any other federal, state, or local governmental charges, general, special, ordinary, or extraordinary, of every kind or nature levied or assessed on or with respect to, or that become payable because of or in connection with the ownership, leasing, management, control, or operation of the Land or Building or both or the personal property, fixtures, machinery, equipment, systems, and apparatus located therein or used in connection therewith. Should the State of Illinois, or any political subdivision of that state or any

other governmental authority having jurisdiction over the land or the Building, (a) impose a tax assessment, charge, or fee or increase a then-existing tax, assessment, charge, or fee, that Landlord shall be required to pay, either by way of substitution for real estate taxes and ad valorem personal property taxes or in addition to real estate taxes and ad valorem personal property taxes; or (b) impose an income or franchise tax or a tax on rents in substitution for or as a supplement to a tax levied against the Land or the Building or the personal property used in connection therewith, all such taxes, assessments, fees, or charges (Alternate Taxes) shall be deemed to constitute "Taxes" under this Lease. "Taxes" shall also include all installments of real estate taxes and special assessments that are required to be paid during any year of the Lease Term and all fees and costs, including attorneys' fees and expenses, incurred by Landlord in seeking to obtain a reduction of or a limitation on the increase in any taxes, regardless of whether any reduction or limitation is obtained. Except as provided in this Lease with regard to Alternate Taxes, "Taxes" shall not include any inheritance, estate, succession, transfer, gift, franchise, net income, or capital stock tax imposed on or assessed against Landlord.

D Tenant acknowledges that the landlord has paid to the cost of Tenant's buildout. Tenant shall pay additional rent of $4700 per month for the cost of this buildout during the terms of this lease and any extension of.

F. Tenant may cancel the portion of lease on the current undeveloped 2872 square feet area at any time as long as it remains unimproved and not buildout.

III. UTILITIES. Tenant shall pay all charges for utility services to the leased premises.

IV. HOLDING OVER. Failure of Tenant to surrender the leased premises at the expiration of the lease constitutes a holding over which shall be construed as a tenancy month to month at a rate of One Hundred Ten Percent (110%) of the amount of the rental to be paid for the last month of the lease term. Either party may cancel said month to month tenancy on one month's advance written notice to the other party.

V. INSURANCE. Landlord shall pay for fire and extended coverage insurance on the buildings and other improvements in an amount equal to the maximum insurable replacement value of the improvements on the leased premises. Said fire and extended coverage insurance policy shall be issued for the benefit of Landlord and any proceeds there from shall be payable to Landlord.

Tenant shall provide public liability and property damage insurance for its business operations on the leased premises in the amount of $1,000,000.00 which policy shall cover the Landlord as well as the Tenant. Said insurance policies required to be provided by Tenant herein shall name Landlord as an additional insured and shall be issued by an insurance company approved by Landlord. Tenant shall provide Landlord with certificates of insurance evidencing the coverage required herein. Tenant shall be solely responsible for fire and casualty insurance on Tenant's property on or about the leased premises. If Tenant does not maintain such insurance in full force and effect, Landlord may notify Tenant of such failure and if Tenant does not deliver to Landlord within 10 days after such notice certification showing all such insurance to be in full force and effect, Landlord may at his option, take out the necessary insurance to comply with the provision hereof and pay the premiums on the items specified in such notice, and Tenant covenants thereupon on demand to reimburse and pay Landlord any amount so paid or expended in the payment of the insurance premiums required hereby and specified in the notice, with interest thereon at the rate of ten (10%) percent per annum from the date of such payment by Landlord until repaid by Tenant.

VI. CONDITION OF PREMISES. Tenant has examined and accepts the leased premises in its present "as is" condition as suitable for the purposes for which the same are leased.

VII. MAINTENANCE AND REPAIRS. Landlord shall keep the foundation, the exterior walls (except glass; windows; doors; door closure devises; window and door frames, molding, locks, and hardware) and exterior painting or other treatment of exterior walls, and the roof of the leased premises in good repair except that Landlord shall not be required to make any repairs occasioned by the act or negligence of Tenant, its employees, subtenants, licensees and concessionaires. Tenant is responsible for maintenance of the common area and common area equipment. If Landlord is responsible for any such repair and maintenance, Tenant agrees to give Landlord written notice of needed repairs. Landlord shall make such repairs within a reasonable time. Tenant shall notify Landlord immediately of any emergency repairs.

Tenant shall keep the leased premises in good, clean condition and shall at its sole cost and expense. make all needed repairs and replacements, including replacement of cracked or broken glass, except for repairs and replacements required to be made by Landlord under this section. If any repairs required to be made by Tenant hereunder are not made within ten (10) days after written notice delivered to Tenant by Landlord, Landlord may at its option make such repairs without liability to

Tenant for any loss or damage which may result by reason of such repairs, and Tenant shall pay to Landlord upon demand as additional rent hereunder the cost of such repairs plus interest.

At the termination of this lease, Tenant shall deliver the leased premises in good order and condition, normal wear and tear excepted. Normal wear and tear means deterioration which occurs without negligence, carelessness, accident or abuse.

VIII. ALTERATIONS. All alterations, additions and improvements, including build out of the leased premises, except trade fixtures, installed at expense of Tenant, shall become the property of Landlord and shall remain upon and be surrendered with the leased premises as a part thereof on the termination of this lease. Such alterations, additions, and improvements may only be made with the prior written consent of Landlord, which consent shall not be unreasonably withheld. If consent is granted for the making of improvements or alterations shall not commence until Tenant has furnished to Landlord a certificate of insurance showing coverage in an amount satisfactory to Landlord protecting Landlord from liability for injury to any person and damage to any personal property, on or off the leased premises, in or structure of any kind shall be placed on the roof or elsewhere on the leased premises by Tenant without prior written permission of Landlord. If such permission is granted, such work or installation shall be done at Tenant's expense and in such a manner that the roof shall not be damaged thereby. If it becomes necessary to remove such cooling tower, equipment or structure temporarily so that repairs to the roof can be made, Tenant shall promptly remove and reinstall the cooling tower, equipment or structure at Tenant's expense and repair at Tenant's expense any damage resulting from such removal or reinstallation. Upon termination of this lease, Tenant shall deliver the leased premises in good order and condition, natural deterioration only excepted. Any damage caused by the installation of trade fixtures shall be repaired at Tenant's expense prior to the expiration of the lease term. All alterations, improvements, additions, and repairs made by Tenant shall be made in good and workmanlike manner.

IX. COMPLIANCE WITH LAWS AND REGULATIONS. Tenant shall, at its own expense, comply with all laws, orders, and requirements of all governmental entities with reference to the use and occupancy of the leased premises. Tenant and Tenant's agents, employees, and invitees shall fully comply with any rules and regulations governing the use of the buildings or other

improvements to the leased premises as required by Landlord. Landlord may make reasonable changes in such rules and regulations from time to time as deemed advisable for the safety, care and cleanliness of the leased premises, provided same are in writing and are not in conflict with this lease.

X. DESTRUCTION. In the event the leased premises is partially damaged or destroyed or rendered partially unfit for occupancy by fire or other casualty, Tenant shall give immediate notice to Landlord. Landlord may repair the damage and restore the leased premises to substantially the same condition as immediately prior to the occurrence of the casualty. Such repairs shall be made at Landlord's expense unless due to tenant's negligence. Landlord shall allow Tenant a fair reduction of rent during the time the leased premises are partially unfit for occupancy. If the leased premises are totally destroyed or deemed by the Landlord to be rendered unfit for occupancy by fire or other casualty, or if Landlord shall decide not to repair or rebuild, this lease shall terminate and the rent shall be paid to the time of such casualty.

XI. TENANT DEFAULT AND REMOVAL OF ABANDONED PROPERTY. If Tenant abandons the premises or otherwise defaults in the performance of any obligations or covenants herein, Landlord may enforce the performance of the lease in any manner provided by law. This lease may be terminated at Landlord's discretion if such abandonment or default continues for a period of 10 days after Landlord notifies Tenant of such abandonment or default and of Landlord's intention to declare this lease terminated. Such notice shall be sent by Landlord to Tenant at Tenant's last known address by certified mail. If Tenant has not completed removed or cured default within the 10 day period, this lease shall terminate. Thereafter, Landlord or its agents shall have the right, without further notice or demand, to enter the leased premises, and remove all property without being deemed guilty of trespass and without waiving any other remedies for arrears of rent or breach of covenant. Upon abandonment or default by the Tenant, the remaining unpaid portion of the rental from paragraph I herein, shall become due and payable. For the purposes of this section, Tenant is presumed to have abandoned the premises if goods, equipment, or other property, in an amount substantial enough to indicate a probable intent to abandon the premises, is being or has been removed from the premises an the removal is not within the normal course of Tenant's business. Landlord shall have the right to store any property of Tenant that remains on premises that are abandoned; and, in addition to Landlord's other rights, Landlord may dispose of the stored property

if Tenant does not claim the property within 60 days after the date the property is stored, provided Landlord delivers by certified mail to Tenant at Tenant's last known address a notice stating that Landlord may dispose of Tenant's property if Tenant does not claim the property within 60 days after the date the property is stored.

XII. INTERRUPTION OF UTILITIES. Landlord or Landlord's agent may not interrupt or cause the interruption of utility service paid directly to the utility company by Tenant unless interruption results from bona fide repairs, construction, or an emergency. If any utility services furnished by Landlord are interrupted and continue to be interrupted despite the good faith efforts of Landlord to remedy same, Landlord shall not be liable in any respect for damages to the person or property of Tenant or Tenant's employees, agents, or guests, and same shall not be construed as grounds for constructive eviction or abatement or rent. Landlord shall use reasonable diligence to repair and remedy such interruption quickly.

XIII. EXCLUSION OF TENANT. Landlord may not intentionally prevent Tenant from entering the leased premises except by judicial process unless the exclusion results from: (a) bona fide repairs, construction, or an emergency; (b) removing the contents of premises abandoned by Tenant; or (c) changing the door locks of Tenant in the event Tenant is delinquent in paying rent. Landlord or Landlord's agent must place a written notice on Tenant's front door stating the name and the address or telephone number of the individual or company from which the new key may be obtained. The new key is required to be provided only during Tenant's regular business hours.

XIV. LIEN. Landlord is granted an express contractual lien, in addition to any lien provided by law, and a security interest in all property of Tenant found on the leased premises to secure the compliance by Tenant with all terms of this lease.

XV. SUBORDINATION. Landlord is hereby irrevocably vested with full power and authority to subordinate this lease to any mortgage, deed of trust, or other lien hereafter placed on the demised premises and Tenant agrees on demand to execute such further instruments subordinating this lease as Landlord may request, provided such subordination shall be on the express condition that this lease shall be recognized by the mortgagee, and the rights of Tenant shall remain in full force and effect during the term of this lease so long as Tenant shall continue to

perform all of the covenants and conditions of this lease.

XVI. INDEMNITY. Landlord and its employees and agents shall not be liable to Tenant or to Tenant's employees, patrons, visitors, invitees, or any other persons for any such injury to any such persons or for damage to personal property caused by an act, omission, or neglect of Tenant or Tenant's agents or of any other tenant of the premises of which the leased premises is a part. Tenant agrees to indemnify and hold Landlord and its employees and agents harmless from any and all claims for such injury and damages, whether the injury occurs on or off the leased premises.

XVII. CONDEMNATION. If the whole or any substantial part of the leased premises is taken for any public or quasi-public use under any governmental law, ordinance or regulation or by the right of eminent domain or should the leased premises be sold to a condemning authority under threat of condemnation, this lease shall terminate and the rent shall be abated during the unexpired portion of the lease effective from the date of the physical taking of the leased premises.

XVIII. HAZARDOUS MATERIALS. Landlord warrants and represents that the Property does not contain "Hazardous Materials", as that phrase is defined herein. For purposes of this provision, the phrase "Hazardous Materials" shall mean and include any toxic contaminated or other hazardous materials including, without limitation, unmanaged asbestos, PCB, transformers, underground storage containers, materials containing any radioactive substances, petroleum base products, paints, solvents, lead, cyandide, DDT, acids, pesticides, ammonium compounds, and any other substance forming a component part of the improvements which has heretofore or may in the future be determined to contain toxic wastes, hazardous materials, or undesirable substances injurious to the health of occupants living or working in or around the subject Property. Landlord acknowledges that current and future federal, state, and local laws and regulations may require the clean up of any such Hazardous Materials at the expense of those persons who in the past, present, or future may have had or continue to have any interest in the Property including, but not limited to, current, past and future owners and users including tenants, of the Property. The cost and expense of such clean up may be substantial. Tenant shall clean up and mitigate the effect of any Hazardous Substances and/or toxic waste which shall have been brought into the premises by Tenant after the

commencement date of the lease and shall indemnify Landlord from all liability therefrom.

XIX. BROKER'S FEE. No Broker's Fee is applicable to this agreement.

XX. NOTICES. Notices to Tenant shall be by certified mail or other delivery to: ILLINOIS SPINE INSTITUTE, SC., 500 West Golf Road, Schaumburg, Illinois, 60195. Notices to Landlord shall be by certified mail to the place where rent is payable at 117 South Cook St., # 206, Barrington, Illinois, 60010.

XXI. DEFAULT BY LANDLORD. In the event of breach by Landlord of any covenant, warranty, term or obligation of this lease, then Landlord's failure to cure same or commence a good faith effort to cure same within 10 days after written notice thereof by Tenant shall be considered a default and shall entitle Tenant either to terminate this lease or cure the default and make the necessary repairs and any expense incurred by Tenant shall be reimbursed by the Landlord after reasonable notice of repairs and expenses incurred.

XXII. SIGNS. During the last 180 days of this lease, a "For Sale" sign and/or a "For Lease" sign may be displayed on the leased premises and the leased premises may be shown at reasonable times to prospective purchasers or tenants.

XXIII. RIGHT OF ENTRY. Landlord shall have the right during normal business hours to enter the leased premises; (a) to inspect the general condition and state of repair thereof; (b) to make repairs required or permitted under this lease; or (c) for any other reasonable purpose.

XXIV. WAIVER OF BREACH. The waiver by Landlord of any breach of any provision of this lease shall not constitute a continuing waiver or a waiver of any subsequent breach of the same or a different provision of this lease.

XXV. TIME OF ESSENCE. Time is expressly declared to be of the essence in this lease.

XXVI. BINDING OF HEIRS AND ASSIGNS. Subject to the provisions of this lease

pertaining to assignment of the Tenant's interest, all provision of this lease shall extend to and bind, or inure to the benefit not only of the parties to this lease but to each and every one of the heirs, executors, representatives, successors, and assigns of Landlord or Tenant.

XXVII. RIGHTS AND REMEDIES CUMULATIVE. The right and remedies by this lease agreement are cumulative and the use of anyone right or remedy by either party shall not preclude or waive its right to use any or all other remedies. Said rights and remedies are given in addition to any other rights the parties may have by law, statute, ordinance, or otherwise.

XXVIII. LAW TO APPLY. This Agreement shall be construed under and in accordance with the laws of the State of Illinois.

XXIX. LEGAL CONSTRUCTION. In case anyone or more of the provisions contained in this agreement shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions hereof and this agreement shall be construed as if such invalid, illegal, unenforceable provision had never been contained herein.

XXX. PRIOR AGREEMENTS SUPERSEDED. This agreement constitutes the sole and only agreement of the parties to this lease and supersedes any prior understandings or written or oral agreements between the parties respecting the subject matter of this lease.

XXXI. AMENDMENT. No amendment, modification, or alteration of the terms hereof shall be binding unless it is in writing, dated subsequent to the date hereof, and duly executed by the parties.

XXXII. ADDITIONAL INSTRUMENTS. The parties hereto will execute any and all additional documents or instruments that may be necessary or convenient to carry out the intent and purposes of the parties to this agreement.

XXXIII. QUIET ENJOYMENT. Upon Tenant paying the rent for the premises and observing and performing all the covenants, conditions, and provisions on Tenant's part to be observed and performed hereunder, the Tenant shall have quiet possession of the premises for the entire term hereof, subject to all the provisions of this lease.

XXXIV. AUTHORIZED PARTIES. Any parties executing this lease on behalf of the Landlord and the Tenant represent and warrant to each other that they are fully authorized and legally capable of executing this lease on behalf of the Landlord and Tenant respectively.

XXXV. COMMON AREAS. Tenant agrees that it will abide by, keep and observe all reasonable rules and regulations which may be established from time to time for the management for

safety, care and cleanliness of the common area and grounds, the parking of vehicles, and the preservation of good order within and upon the common area, as well as for the convenience of other occupants and tenants sharing the common area. The violations of any such rules and regulations shall be deemed a material breach of this lease by Tenant.

XXXVI. AUTOMATIC EXTENSION. The term of this lease, upon expiration of the initial ten (10) year term shall automatically be extended for two (2) additional and successive periods of five (5) years each commencing upon the day following the expiration of the primary term or first extended term; in absence of Tenant giving Landlord written notice, not less than one hundred eighty (180) days prior to the expiration date of the primary term, or first five year extension term, as applicable, that it elects to terminate said lease. The extended term(s) shall be upon the same terms and conditions, including payment of Additional Rent. The rent shall increase by 3% each year.

XXXVII. This agreement nullifies and supersedes all prior lease agreements between the parties.

IN WITNESS WHEREOF, the parties have executed this Office Lease this 11 day of May, 2018.

TENANT:
ILLINOIS SPINE INSTITUTE, SC.
500 West Golf Road
Schaumburg, IL 60195

By: _____
Babak Lami, M.D.
President

OWNER:
UNCUS, LLC
117 South Cook St., #206
Barrington, IL 60010

By: _____
Carl N. Graf, ~~III,~~ M.D.
Manager

Attest:

By: _____
Carl N. Graf, ~~III~~, M.D.,
Secretary

Attest:

By: _____
Babak Lami, M.D.,
Manager

October 1, 2018

Specialty Surgicare, LTD.
500 West Golf Road,
Schaumburg, Illinois 60195

Re: Letter of Intent to Sub-Lease
500 West Golf Road, Schaumburg, Illinois 60195

Dear Specialty Surgicare, LTD.,

This letter of intent ("LOI") with an effective date of October 1, 2018 is between Illinois Spine Institute, SC. and Specialty Surgicare, LTD.. This LOI does not constitute a contract between the parties and is not intended to be binding on either party. Specialty Surgicare, LTD. acknowledges that as a sub-leasee it is subject to all terms and conditions contained in the lease (Attachment A) between Illinois Spine Institute, SC. and UNCUS, LLC.

Total Area Required: 2881 SF (24.5% of total area)

Use: Ambulatory Surgical Treatment Center

Sub-Lease Term: 1st day of the Month following CON approval Date and for a period of 5 years thereafter.

Lease Commencement: 1st day of the Month following CON approval date

Lease Rate: Subject to 24.5% of payment terms listed in page 1 section I underlying lease between UNCUS, LLC and Illinois Spine Institute, SC.

Lease Terms: Specialty Surgicare, LTD. acknowledges that as a sub-leasee it is subject to all terms and conditions contained in the lease between Illinois Spine Institute, SC. and UNCUS, LLC.

This LOI does not constitute a contract between the parties and is not intended to be binding on either party. This LOI is intended solely as an expression of terms upon which the parties will endeavor to negotiate a formal and binding lease agreement which meets with the approval of both parties respective counsel. In no event shall either party incur any liability whatsoever of its failure to execute a formal and binding lease agreement or for any other reason.

IN WITNESS WHEREOF, this Agreement has been executed by **Specialty Surgicare, LTD.** and **Illinois Spine Institute, SC.** on the date first above written.

Specialty Surgicare, LTD.

By: _____ MD
Printed Name: Babak Lami
Title: President

Illinois Spine Institute, SC

By: _____ MD
Printed Name: Babak Lami
Title: President

77 Ill. Admin. Code Section 1120.130 Financial Viability

77 Ill. Admin. Code Section 1120.140(c)- Reasonableness of Project and Related Costs

Below is outlined the cost per square foot for the establishment of the ASTC, taking into consideration the entirety of the modernization costs and excluding those costs solely attributable to the fair market value of the property.

COST AND GROSS SQUARE FEET BY DEPARTMENT OR SERVICE									
Department (list below)	A	B	C	D	E	F	G	H	Total Cost (G + H)
	Cost/Square Foot New	Cost/Square Foot Mod.	Gross Sq. Ft. New	Gross Sq. Ft. Circ.*	Gross Sq. Ft. Mod.	Gross Sq. Ft. Circ.*	Const. $ (A x C)	Mod. $ (B x E)	
ASTC	$0	$0	-	-	-	-	$0	$0	$0
Contingency	$0	$0	-	-	-	-	$0	$0	$0
TOTALS	$0	$0	-	-	-	-	$0	$0	$0
* Include the percentage (%) of space for circulation									

This project will be located in space that was built by another entity to house an ASTC. As a result, there is no construction nor modernization costs associated with this project. Therefore, while the lease costs are outlined and documented throughout this application, there is no particular per square foot cost, other than the cost of the lease which is not included in this criteria, as it is purely operational cost.

77 Ill. Admin. Code Section 1120.140(d)- Project Operating Costs

The chart below outlines the total projected annual capital costs (in current dollars per equivalent patient day) for the first two full fiscal years at target utilization.

	First Year	Second Year
Collection		
	$1,600,000	$2,200,000
Expenses		
Rent	70,272	72,380
Surgical & Medical supplies	700,000	750,000
Payroll	250,000	260,000
Insurance	100,000	150,000
Office/computer	5,000	5,000
Repairs & Maintenance	10,000	10,000
Professional Fees	30,000	20,000
Education	5000	5000
Utilities	5760	6000
Total expense	1,176,032	1,278,380
Net Income	$423,968	$921,620

77 Ill. Admin. Code Section 1120.140(e)- Total Effect of the Project on Capital Costs

Below are the total annual capital costs (in current dollars per patient day and per procedure) for the first two full fiscal years at target utilization.

	First Year	Second Year
Collection		
	$1,600,000	$2,200,000
Expenses		
Rent	70,272	72,380
Surgical & Medical supplies	700,000	750,000
Payroll	250,000	260,000
Insurance	100,000	150,000
Office/computer	5,000	5,000
Repairs & Maintenance	10,000	10,000
Professional Fees	30,000	20,000
Education	5000	5000
Utilities	5760	6000
Total expense	1,176,032	1,278,380
Net Income	$423,968	$921,620

20ILCS 3960/5.4 Safety Net Impact Statement

This project will have a significant impact on the essential safety net services in the community. Our doctors are either currently Medicare and Medicaid certified physicians (or have pending applications) whose existing patient base will utilize the facility to continue treatments to alleviate chronic pain conditions and address back pain through state of the art spinal interventions procedures.

This facility will complement existing health care facilities and relieve pressure on area hospital surgical suites in the area, while providing patients with a facility dedicated to ensuring they can continue receiving life sustaining treatment.

Safety Net Information per PA 96-0031			
CHARITY CARE			
Charity (# of patients)	**2015**	**2016**	**2017**
Outpatient	0	0	0
Total			
Charity (cost In dollars)	**0**	**0**	**0**
Outpatient	0	0	0
Total	0	0	0
MEDICAID			
Medicaid (# of patients)			
	2015	**2016**	**2017**
Outpatient	0	0	0
Total	0	0	0
Medicaid (revenue)			
Outpatient	0	0	0
Total	0	0	0

77 Ill. Admin. Code Section 1120.20(c) Charity Care Information

This project will have a significant impact on the essential safety net services in the community. Our doctors are either currently Medicare and Medicaid certified physicians (or have pending applications) whose existing patient base will utilize the facility to continue treatments to alleviate chronic pain conditions and address back pain through state of the art spinal interventions procedures.

This facility will complement existing health care facilities and relieve pressure on area hospital surgical suites in the area, while providing patients with a facility dedicated to ensuring they can continue receiving life sustaining treatment.

CHARITY CARE			
	2015	**2016**	**2017**
Net Patient Revenue	**0**	**0**	**0**
Amount of Charity Care (charges)	0	0	0
Cost of Charity Care	0	0	0

After paginating the entire completed application indicate, in the chart below, the page numbers for the included attachments:

INDEX OF ATTACHMENTS

ATTACHMENT NO.		PAGES
1	Applicant Identification including Certificate of Good Standing	24
2	Site Ownership	25-39
3	Persons with 5 percent or greater interest in the licensee must be identified with the % of ownership.	40
4	Organizational Relationships (Organizational Chart) Certificate of Good Standing Etc.	41
5	Flood Plain Requirements	42
6	Historic Preservation Act Requirements	43
7	Project and Sources of Funds Itemization	44
8	Financial Commitment Document if required	N/A
9	Cost Space Requirements	45
10	Discontinuation	N/A
11	Background of the Applicant	46-52
12	Purpose of the Project	53-88
13	Alternatives to the Project	89-90
14	Size of the Project	91
15	Project Service Utilization	92
16	Unfinished or Shell Space	N/A
17	Assurances for Unfinished/Shell Space	N/A
	Service Specific:	
18	Medical Surgical Pediatrics, Obstetrics, ICU	N/A
19	Comprehensive Physical Rehabilitation	N/A
20	Acute Mental Illness	N/A
21	Open Heart Surgery	N/A
22	Cardiac Catheterization	N/A
23	In-Center Hemodialysis	N/A
24	Non-Hospital Based Ambulatory Surgery	93-126
25	Selected Organ Transplantation	N/A
26	Kidney Transplantation	N/A
27	Subacute Care Hospital Model	N/A
28	Community-Based Residential Rehabilitation Center	N/A
29	Long Term Acute Care Hospital	N/A
30	Clinical Service Areas Other than Categories of Service	N/A
31	Freestanding Emergency Center Medical Services	N/A
32	Birth Center	N/A
	Financial and Economic Feasibility:	
33	Availability of Funds	127-141
34	Financial Waiver	142
35	Financial Viability	N/A
36	Economic Feasibility	143-145
37	Safety Net Impact Statement	146
38	Charity Care Information	147